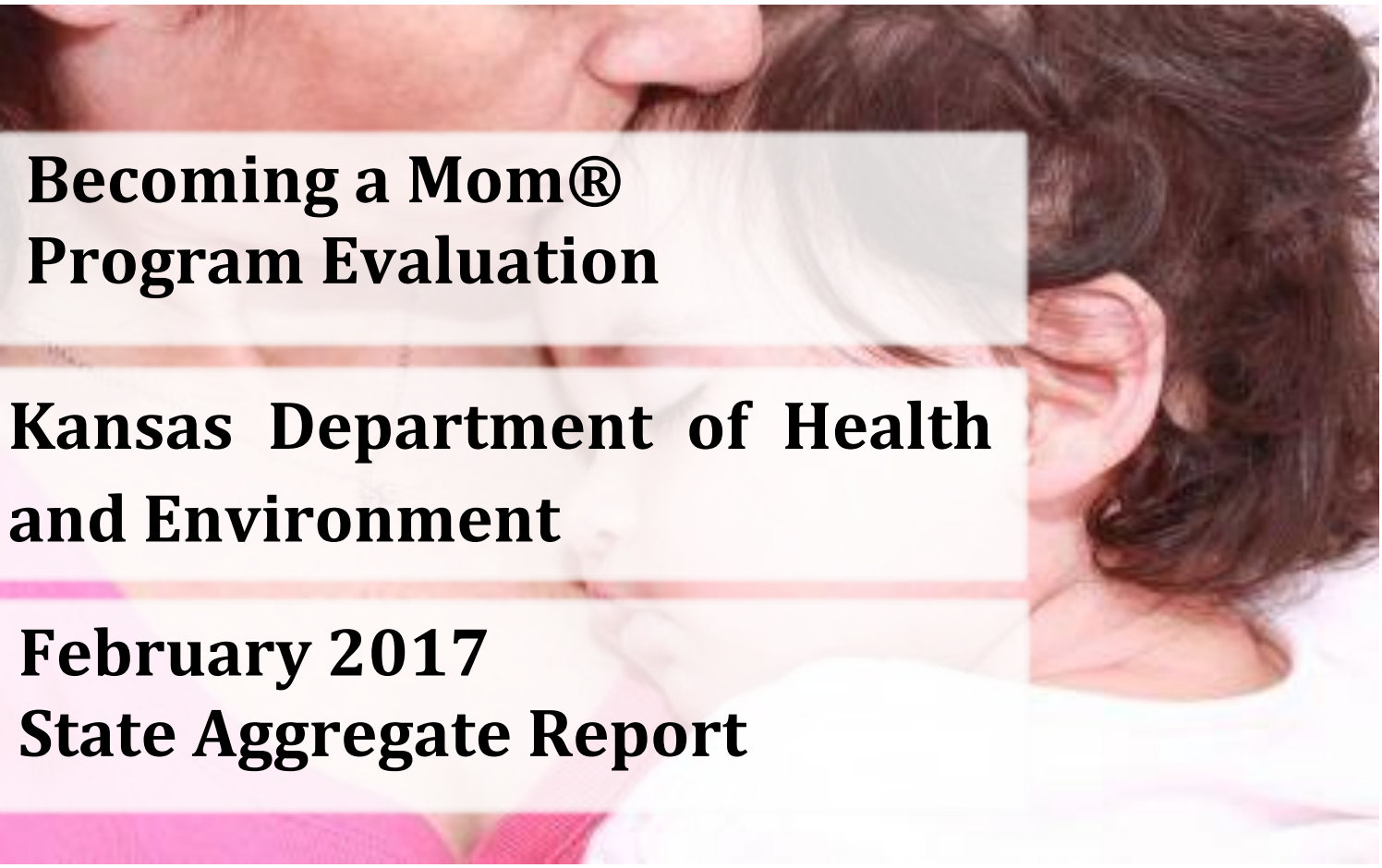

Becoming a Mom®
Program Evaluation

Kansas Department of Health and Environment

February 2017
State Aggregate Report

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End-of-Year Aggregate Report Report covers January-December 2016 program data Report date: February 2017	

*Collaboratives utilizing the March of Dimes Becoming a Mom® (BaM) Prenatal Education Curriculum

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Executive Summary

Introduction

In Kansas, and across the United States, the primary causes for infant mortality following congenital anomalies is premature birth and low birth weight, Sudden Unexplained Infant Death (SUID), and maternal factors and complications.[1] These rates continue to be significantly affected by racial, ethnic, socioeconomic, and geographic disparities. In response, the Kansas Maternal and Child Health Council (KMCHC) supports the original recommendations by the Kansas Blue Ribbon Panel on Infant Mortality (est. 2009) to include the March of Dimes Becoming a Mom/Comenzando bien® (BaM/Cb) Birth Disparities program as an initiative to help address these issues. Implementation of the BaM/Cb bilingual prenatal curriculum in other states has shown an increase in adequate prenatal care and prenatal health knowledge improving health behaviors and birth outcomes (March of Dimes California Chapter, Evaluation of Becoming a Mom, Sept. 2013). To date, Kansas has found similar outcomes among program participants across our state.

Kansas' Perinatal Community Collaborative Model

In 2010, following the release of the Kansas Blue Ribbon Panel recommendations, coupled with cuts in state and local funding, the March of Dimes (MOD) Greater Kansas Chapter partnered with state and local public health partners to create an innovative concept. This concept included a perinatal community collaborative education model utilizing the Becoming a Mom/Comenzando bien® curriculum to address birth disparities primarily among low-income, minority women who are eligible for Medicaid. Starting with a pilot program in Salina, Kansas (Saline County), the model has a two-fold focus of clinical services and prenatal education that is driven by private and public partnerships across the state and local level including: Title V Maternal & Child Health (MCH), Medicaid, local public health departments, federally qualified health centers, clinical providers, hospitals, and foundations. The community collaborative model brings permanent MCH infrastructure, leveraged and shared resources, change in the prenatal care delivery services paradigm, a vehicle to identify community needs, a standardized evaluation system, and new funding opportunities for community collective impact, and improved birth outcomes.

Statewide Expansion

The innovative model was first replicated in Junction City (Geary County), Kansas in 2012 with the similar preliminary successes of the pilot program. With two effective sites implementing the model, program evaluation tools were refined and standardized in 2013 in partnership with evaluators from the University of Kansas School of Medicine-Wichita and Wichita State University. Preliminary data reports showed improvements in participant's knowledge, behaviors, and growth of community partnerships and shared resources.

In 2014, the Kansas Department of Health and Environment (KDHE) committed to partner with the March of Dimes for further expansion of the model across the state, as well as securing long-term sustainability of the program by integrating it into Title V MCH services. In partnership, three additional sites were brought on in 2014, including: Crawford County in southeast Kansas and Wyandotte County and Riley County, both in northeast Kansas. Amerigroup (WellPoint), one of Kansas' three Medicaid (KanCare) managed care organizations, joined as a partner and investor in 2014. In January of 2015, two new sites

were launched. These two sites included Reno County and Newman Regional Health Center (in Lyon County), located in central Kansas. In late 2015 (November), three additional sites launched between north and south central Kansas. These sites included: Clay County, Dickinson County, and Sedgwick County (led by KU School of Medicine in Wichita). In October 2016, the eleventh program site was launched in Montgomery County in the southeast corner of the state. This site was launched with support and partnership from a neighboring program in Crawford County.

Additional expansion work in 2016 included hosting two implementation trainings in southwest Kansas in July. Work is currently in progress in this region for launch of the first regional BaM /Cb program model in the state. Plans are in place to pilot this regional model approach in north central Kansas, with the already well established Saline County BaM/Cb program as the lead. Additionally, interest in the BaM/Cb program was included in the Title V SFY 2017 MCH Aid-to-Local applications for multiple counties located across different regions of the state. Expansion planning involves prioritizing locations for program implementation based on birth disparities, interest by the community and will to collaborate, and lack of MCH services of this nature in the area.

Program Enhancements

Training and Support

Technical assistance, training, evaluation support, and infrastructure development has continued to be enhanced through the March of Dimes and Kansas Department of Health and Environment partnership. Through August 2015, March of Dimes led state coordination efforts including program implementation trainings and technical assistance support. In April 2015, the Kansas Department of Health and Environment increased their investment by hiring a Maternal Child Health (MCH) Consultant to support these efforts and take on the role of state coordination in-house, with the intention of expanding and building long-term sustainability of the Becoming a Mom/Comenzando bien® (BaM/Cb) program, while freeing March of Dimes resources for further development and expansion of the Healthy Babies are Worth the Wait initiative across the state. As there is a need for these two programs to go hand-in-hand in a community for greatest effect, we are excited about the potential of these co-existing investments.

Integration of state and local resources has been another focused enhancement to the program throughout the past couple of years, and continues to be a priority. Led by the March of Dimes investment in the Saline County program as a pilot site, along with the support of KDHE staff, 2015 was spent developing and piloting an integration plan for all BaM/Cb program sites in Kansas. This plan specifically targeted the integration of state entities such as Kansas Tobacco Quitline, WIC, Kansas Breastfeeding Coalition, and the Kansas Infant Death and SIDS (KIDS) Network. This integration included redesign of the infant feeding session (session 4), including the incorporation of an evidence-based, breastfeeding-focused, curriculum. Along with this, a BaM/WIC integration plan streamlined enrollment in both programs from the other program, while incentivizing dual participation in programs. It included the development of an “integration of tobacco cessation services toolkit”, that includes standardized screening, referral, resources, and follow-up. Additionally, all sites were trained in implementing the nationally recognized, evidence-based “Baby and Me Tobacco Free” program. Following a yearlong pilot of the program in the state, six sites have decided to continue the program for another year. Updating and standardization of the safe sleep / SIDS risk reduction message as a part of the infant care session (session 5), was another focus area, as well as the development of a standardized process for screening,

resources, referral, and follow-up, related to mental health. Training of all ten sites on these integration components began in November 2015 and was completed in February 2016, although the integration of services development work has continued throughout this year and will continue throughout the life of the program. KDHE is committed to continued development, training, and support, for further integration of services and resources into the BaM/Cb program model in the state of Kansas. Integration components currently under development include: Pregnancy Exercise and Nutrition Program (PEP) in collaboration with KU School of Medicine, Wichita; oral health component in collaboration with Oral Health Kansas; Pre and Early Term Birth/17P (appropriate utilization of progesterone), in connection with national and state led *Collaborative Improvement and Innovation Network* (CoIIN) initiative; infant/toddler safety component, in collaboration with Safe Kids Kansas. With a continued focus on integration of valuable education and support services, it is expected that evaluation efforts will show an increase in program participants in state and local maternal child health programs (e.g. Medicaid, CHIP, WIC, KS Quitline, MCH). Through enhanced outreach, health education, public awareness and increased referral services available to the program's participants, we aim to continually drive the improvement of birth outcomes in our state.

Curriculum Standardization

In addition to the integration efforts that have been underway, extensive work has been done over the past six months to enhance the original Becoming a Mom® curriculum with the addition of standardized supplemental handouts identified as needed topic content to fill gaps in education around a number of priority areas. This work has been done in partnership with a curriculum review committee initiated by the KU School of Medicine - Wichita (Sedgwick County program), input from multiple local BaM programs, and development led by KDHE. Support by MOD has provided guidance around this work in adherence to copyright laws protecting the original curriculum and Becoming a Mom® logo. Printing of the curriculum for all Kansas program participants is in process at this time, thanks to partnership and financial investment from Sunflower Health Plan, another one of Kansas' three managed care organizations. Additional infrastructure support is currently under development by way of standardized PowerPoints, lesson and activity plans, and recommended resource documents, to be used during BaM sessions. These materials are the product of a partnership between KU School of Medicine – Wichita (Sedgwick County) and KDHE.

Program Evaluation

Another area of focused enhancement over the past year and a half has been on the evaluation component of the program. For some time, there had been concern related to the value of results from initial program evaluation tools. It had appeared that perhaps the way some questions had been asked was either confusing to participants, or leading. As well, there had been a number of questions where there was not a statistically significant difference between pre and post survey results. In May 2015, KDHE contracted with the University of Kansas Center for Public Partnerships and Research (KU-CPPR) to conduct analysis on the pre- and post-program survey instruments. A brief discussion of the statistical analysis methodology and results is included in the next section of this report, for a historical perspective on this process. As a result, evaluation tools were redesigned by the joint effort of KU-CPPR, KDHE, and the MOD. These evaluation tools were built into the new data system "DAISEY", utilized by KDHE for data collection of Bureau of Family Health - Aid-to-Local programs, and is supported and maintained by KU-CPPR staff. DAISEY provides a single secure place for KDHE funded Family Health programs to enter all

data required for state and federal reporting. DAISEY is a shared measurement system designed by social scientists to help communities see the difference they are making in the lives of at-risk children, youth, and families. It has been exciting to have the opportunity we have had to be included in the use of this new system as a part of our evaluation efforts for the BaM/Cb program. This system gives confidence in the sustainability of the program long term. BaM/Cb programs began as the first pilot sites for DAISEY, with the input of program data from new program participants as of November 1, 2015. Just over one year into utilization of the new evaluation tools and data system, program staff are seeing the benefit of data collection in real time via this web-based system. Development of the "BaM Service Form Report" has been underway by KDHE and KU-CPPR teams over the past 6-8 months and was made available to sites through the DAISEY live environment in August 2016. The report's intention is to allow BaM program staff to track and evaluate participants' session completion, form completion, program completion, and referrals, in an easy-to-use and meaningful way. After a brief testing period, a few "disconnects" were detected in the design of the report. The report is currently undergoing redesign and will be released upon completion in the upcoming months.

Factor Analysis of Pre- and Post-Program Survey Instruments

To examine the properties of the surveys and the characteristics of the items, item analysis and reliability analysis were performed by the University of Kansas Center for Public Partnerships and Research (KU-CPPR). Also, in order to explore the dimensions of knowledge about pregnancy, principle component analysis (PCA) was conducted. The efficacy of the program was evaluated by comparing participants' performance on pre- and post-program surveys using repeated measures multivariate analysis of variance (MANOVA). Before performing all planned analyses, items were scored dichotomously based on participants' responses, with "1" representing a correct answer and "0" representing an incorrect answer or response of "I don't know".

Item analysis was conducted to examine the difficulty and discrimination of items. Operationally, item difficulty was defined as the proportion of participants who answered a given item correctly, and discrimination as the point-biserial correlation between participants' scores on a given item and the total scores on the survey. A negative discrimination score suggests participants who answered the item incorrectly obtained a high total score. A low discrimination score (item-total correlation less than .20) indicates participants' performance on the item did not significantly impact their overall performance on the survey. Items that met either of these criteria were removed from further analyses. After item analyses, 13 items were removed due to either negative or low discrimination scores.

The internal consistency among the remaining 26 items was examined by calculating Cronbach's α coefficient. A Cronbach's α coefficient of .834 indicated a good internal consistency of the pre-program survey scores.

Principle component analysis (PCA) was chosen over exploratory factor analysis for two reasons. First, knowledge on pregnancy was considered a domain of study rather than an unobserved theoretical construct. Therefore, the primary focuses were on information summary and item/dimension reduction. Second, after reducing a pool of items into a small number of components, the components could be used as core domains to further evaluate the efficacy of the program in improving participants' knowledge.

Kaiser-Myer-Olkin test (KMO) and Bartlett's test of sphericity were run in order to determine the appropriateness of using PCA. Items were retained based on the magnitude of their "factor loadings" and if they theoretically made sense. Items with a factor loading of 0.40 or greater were retained. Since the survey was designed to assess participants' knowledge within six domains: healthy living during pregnancy, pregnancy, labor and pain management, infant feeding, infant care, and postpartum care; in PCA, the number of components to yield was fixed to six.

The six components that emerged from pre-program survey responses were named as: Pregnancy health, Post-pregnancy health, Pre-term labor, Pre-term labor response, Normal post-partum, and Abnormal post-partum. While these were not the original hypothesized "factors", they did make sense in accordance with topics covered in the BaM program. To examine the consistency and stability of the obtained component structure, a PCA was also run on the post-program survey data. PCA failed to confirm the component structure of the survey. Therefore, the validity of the survey construct is suspect and fails to measure accurate post-intervention results.

McNemar Test

For the change in knowledge questions in Table 2, a McNemar test was used to test the change in proportions.

Outcomes Worth Noting

In review of outcome findings noted in the next section of this report, please call attention to the improvements in outcomes over state level data and Healthy People 2020 goals, particularly related to low birth weight and breastfeeding initiation rates (Figure 30). We would also like to make special note of the improvement in Infant Mortality Rate (IMR) from pre-program implementation to post-program implementation in the counties of our two longest running program locations. IMR in these two counties has decreased at a rate of over 2.5 times that of the state.

*Rate is deaths/1000 live births *Source: Kansas Vital Statistics 2006-2010 and 2011-2015	2006-2010 IMR rate (5-yr. rolling average)	2011-2015 IMR rate (5-yr. rolling average)
Saline County (BaM / Community Collaborative start date July 2010)	8.5	4.2
Geary County (BaM / Community Collaborative start date July 2012)	10.4	6.4

Introduction

This report is a summary of evaluation results for January through December 2016 for the Becoming a Mom/Comenzando bien® (BAM/Cb) program in Kansas.* Specifically, this report summarizes findings from the pre and post surveys and follow-up health outcome questionnaires. This being the first report utilizing data captured in DAISEY, there is an overlap with the former data collection tools/system (Excel spreadsheet). This overlap is due to participants who started the program before the implementation of DAISEY, thus being required to complete the program with the former evaluation tools and within the former Excel spreadsheet due to some data points not being comparable across tools. This has created some complexity with data collection, input, and analysis since November, however, we've known this process would be time-limited to the duration of cross-over of participants from one system to the other. The long-term benefit to all involved is of great value, therefore worth this transitional period of increased difficulty and work load.

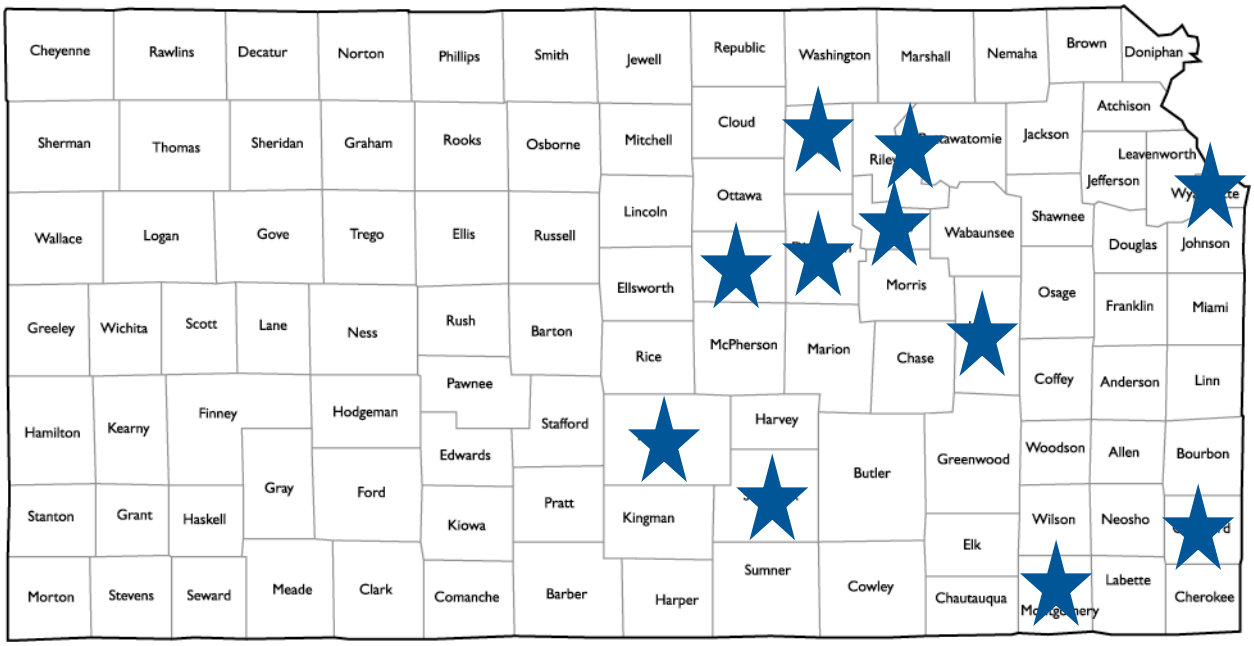
Evaluation data were sent to the KDHE evaluator for analysis. Data were cleaned, screened, and exported from Excel to SAS 9.4. The data sets were merged together and then analyzed at a group level. Two data sets were created: one for women completing their post-survey between January 1, 2016 and December 31, 2016 and another for those completing their outcome survey in the same time frame. The Becoming a Mom/Comenzando bien® programs analyses were conducted and data were reported for the following Kansas counties:

1. Clay
2. Crawford
3. Dickinson
4. Geary
5. Lyon
6. Reno
7. Riley
8. Saline
9. Sedgwick
10. Wyandotte

*This report also includes the women who completed their post-survey in DAISEY between November and December 2015 but were not able to be included in the 2015 end-of-year report due to the transition between systems and associated evaluation tools.

*Montgomery County data are not included in this report due to an implementation date of October 2016, thus leading to minimal data in the system for analysis. This data will be included in the July 2017 mid-year report.

Figure 1. Location of BAM Sites



Survey Questions

Pre/Post Questions

Before the launch of DAISEY, the program utilized de-identified pre and post-survey instruments to evaluate participant responses to the educational intervention. The curriculum and questions were designed to assess knowledge of risks of pregnancy and current and future behaviors. Pregnant women indicated their response to 5 point Likert scales, yes/no, multiple choice, and fill-in-the-blank questions based on their current understanding (unassisted). The survey was comprised of thirty-seven main items with multiple sub-questions. Three (3) questions were demographic questions used to describe the population. The post-survey also included questions on the woman's experience in the program.

With the launch of DAISEY in November 2015, pre and post-survey instruments, as well as the outcome survey, were revised. In addition, demographic data fields were pulled out of the original surveys and placed on a separate program visit form in DAISEY, which collects demographic data consistently across KDHE MCH programs. The newly revised evaluation tools consist of the following questions and response types, as displayed below.

The DAISEY KDHE Program Visit Form collects the following demographic data:

Question	Type*
Primary Healthcare Coverage	MC
Secondary Healthcare Coverage	MC
Has the client had a well visit during the last 12 months	Y/N
Does the client have a special health care need or disability	Y/N
Does the client care for any children who have special health care needs	Y/N
Household Size	FB
Annual Household Income	FB

Education Level	MC
Current Student	MC
Employment	MC
Marital Status	MC
Sex	MC
Race	MC
Ethnicity	MC
Primary Language	MC
Limited English Proficiency	Y/N
*Type of Answer Choices: FB: Fill-in-Blank MC: Multiple Choice Y/N: Yes and No (and Don't Know)	

The pre-survey in DAISEY includes the following knowledge and behavior questions and response types:

Question	Type*
How did you first hear about Becoming a Mom/Comenzando bien®?	MC
Is this your first pregnancy?	Y/N
How many premature births?	FB
How many babies you had weigh less than 5 lbs. 8 oz?	FB
How many miscarriages have you had?	FB
Have you had a baby that was not born alive?	Y/N
Have you had a baby that died within the 1st year?	Y/N
Do you have other children?	Y/N
If yes, how many other children do you have less than 1 yr old?	FB
If yes, how many other children do you have age 1 to 11 yrs old?	FB
If yes, how many other children do you have age 12 to 22 yrs old?	FB
Number of these children who have Special Health Care Needs?	FB
How pregnant are you now?	MC
When is your due date?	FB
Have you had your 1st prenatal appointment?	FB
What trimester did you begin seeing a health care provider for this pregnancy?	Y/N
What is the name of your healthcare provider/clinic?	MC
Do you have any of the following health problems?	FB
Has your healthcare provider told you that you have a "high risk" pregnancy?	MC
If yes, please indicate the reason.	Y/N
Are you enrolled in the WIC Program?	FB
I attend scheduled prenatal care visits with my healthcare provider (Doctor or Nurse Midwife):	MC
The following sometimes prevents me from attending my prenatal appointments:	MC
Please specify "other" barrier(s) to attending prenatal appointments:	FB
I currently take prenatal or multi-vitamins containing folic acid.	MC
Which of the following are signs of preterm labor/ labor?	MC
I should do the following if I'm experiencing preterm labor (before 37 weeks)	MC
The following postpartum symptoms are normal for a mother to experience after delivery.	MC
If I experience depression and/or anxiety during or after my pregnancy, I am ___ about available resources in my community.	MC

I have talked to my healthcare provider about medications that I'm taking (prescription and/or over the counter, herbal, etc.):	MC
If I am considering taking medications (prescription and/or over the counter, herbal, etc.), I am _____to talk to my healthcare provider before taking them.	MC
I walk or do at least 30 minutes of moderate, low-impact physical activity _____ days per week.	MC
I currently smoke _____ cigarettes per day.	MC
I believe I can use alcohol _____ without harming my baby.	MC
I believe I can use narcotics _____ without harming my baby.	MC
I believe I can use Marijuana _____ without harming my baby.	MC
I believe I can use methamphetamines or amphetamines _____ without harming my baby.	MC
I am _____ to develop a birth plan and talk to my healthcare provider about it.	MC
A pregnancy is full-term when it reaches _____ weeks.	MC
The following are benefits of a full term pregnancy:	MC
The following is true about breastfeeding: (check all that apply)	MC
I am _____ to breastfeed my baby.	MC
If I am having difficulty breastfeeding my baby or if I have questions about breastfeeding, I know about _____ available resources in my community.	MC
I feel _____ about my ability to breastfeed.	MC
After delivery, I plan to take prenatal vitamins or multi-vitamins containing folic acid:	MC
I will put my baby to sleep on his/her:	MC
At home, my baby will sleep:	MC
I am ___ to talk about Safe Sleep with my child's other care providers (family members, childcare providers, etc).	MC
I am _____ to talk to my healthcare provider during my prenatal care about methods for preventing pregnancy after the birth of my baby.	MC
What method are you planning to use/talk to your healthcare provider about?	MC
I believe there is _____ to my health and the health of my next baby if I wait a minimum of 18 months before my next pregnancy.	MC
*Type of Answer Choices: FB: Fill-in-Blank Likert: 5-point Likert Scale from Strongly Disagree to Strongly Agree MC: Multiple Choice Y/N: Yes and No (and Don't Know)	MC

The post-survey in DAISEY includes the same knowledge and behavior questions plus the following evaluation fields:

Question	Type*
How was your overall experience with the Becoming a Mom/Comenzando bien® program?	MC
I felt a connection to and supported by other pregnant women in the classes.	Likert
I felt a connection to and supported by my class teacher or group leader.	Likert
How hard was the information in the Becoming a Mom/Comenzando bien® session to understand?	MC
Please choose the community programs that you learned about in Becoming a Mom/Comenzando bien® that you have contacted or plan to contact.	MC
How much new information did you learn from the Becoming a Mom/ Comenzando bien® program?	MC

How helpful/ valuable was the information you learned in Becoming a Mom/ Comenzando bien® for the following sessions?	
"Prenatal Care"	MC
"Pregnancy Health"	MC
"Labor and Delivery"	MC
"Infant Care"	MC
"Infant Feeding"	MC
"Postpartum Care"	MC
*Type of Answer Choices: FB: Fill-in-Blank Likert: 5-point Likert Scale from Strongly Disagree to Strongly Agree MC: Multiple Choice Y/N: Yes and No (and Don't Know)	

Outcome Questions

The program utilized different methods at each program site to gather birth outcome data. Most data was self-reported by participants and some was extracted from accessible medical records by those involved in usual maternity care/services and reported to the program (as described in participant consent form). The questions in DAISEY include the following:

Question	Type*
What is the name of the hospital where you gave birth?	FB
At what gestational age was your baby born?	MC
What was your baby's weight at birth?	MC
Were you induced?	Y/N
Why were you induced?	MC
How was your baby delivered?	MC
Why cesarean delivery?	MC
Did you develop any medical conditions during your pregnancy?	Y/N
If yes, check the medical conditions that you developed.	MC
Are you currently breastfeeding your baby?	Y/N
Did you nurse at all?	Y/N
How long did you nurse?	MC
If you are breastfeeding, are you using:	MC
Did any information that you learned in class change for you:	MC
How many weeks old is your baby?	FB
Have you had your 1st postpartum checkup?	MC
Where are you going for postpartum care?	MC
Please choose the community programs that you learned about in Becoming a Mom/Comenzando bien® that you have contacted or plan to contact.	MC
Have you scheduled or attended your baby's first check up?	Y/N
Do you have a doctor for your baby?	Y/N
What type of insurance do you have for your child?	MC
At birth, did your baby have any medical conditions/ concerns which required NICU admission?	Y/N
If yes, what condition(s)?	MC
Are you taking multivitamins/prenatal vitamins every day now that your baby is born?	MC

I currently smoke ___cigarettes per day.	MC
Have you talked to your doctor about options for preventing pregnancy?	Y/N
Are you using or do you plan to use any method to prevent pregnancy?	Y/N
What method are you using / planning to use?	MC
*Type of Answer Choices: FB: Fill-in-Blank MC: Multiple Choice Y/N: Yes and No (and Don't Know)	

Results/Analysis

Data presented throughout the report represent participants with a post-survey completed between January 1, 2016, and December 31, 2016, as well as any participant who completed their post-survey in DAISEY between November and December 2015 (N=932) (Table 1). The data in the outcome section represents participants with a completed outcome survey in the same time frame (N=696).

Demographics

Sedgwick County had the most number of participants post-survey (n=235), followed by Geary County (n=151) and Riley County (n=108). Six hundred and ninety-six mothers completed the outcome survey. Births of multiples included a set of triplets and a set of twins in Clay County, a set of twins in Dickinson County, a set of twins in Geary County and a set of twins in Sedgwick County totaling 702 babies.

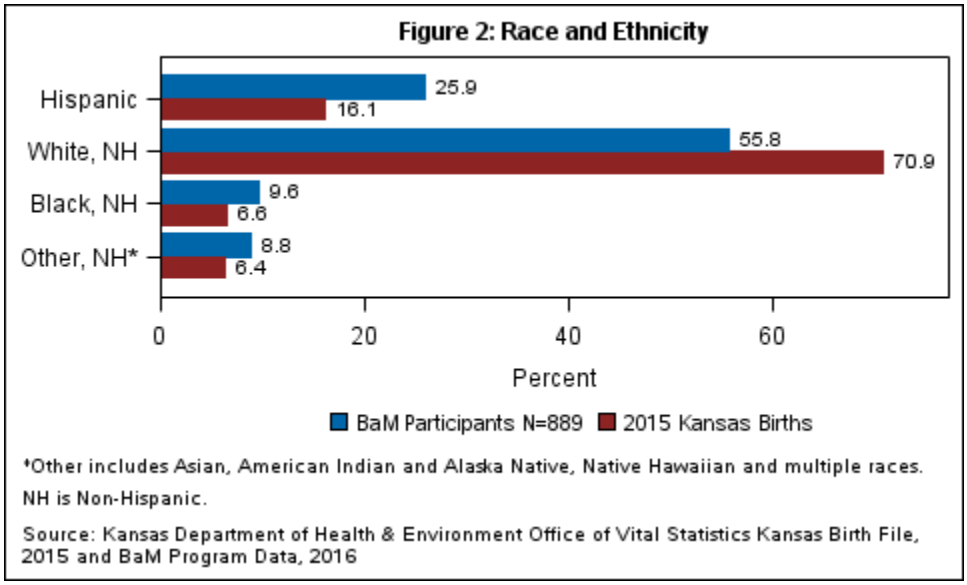
Table 1: Number of Participants by Site*

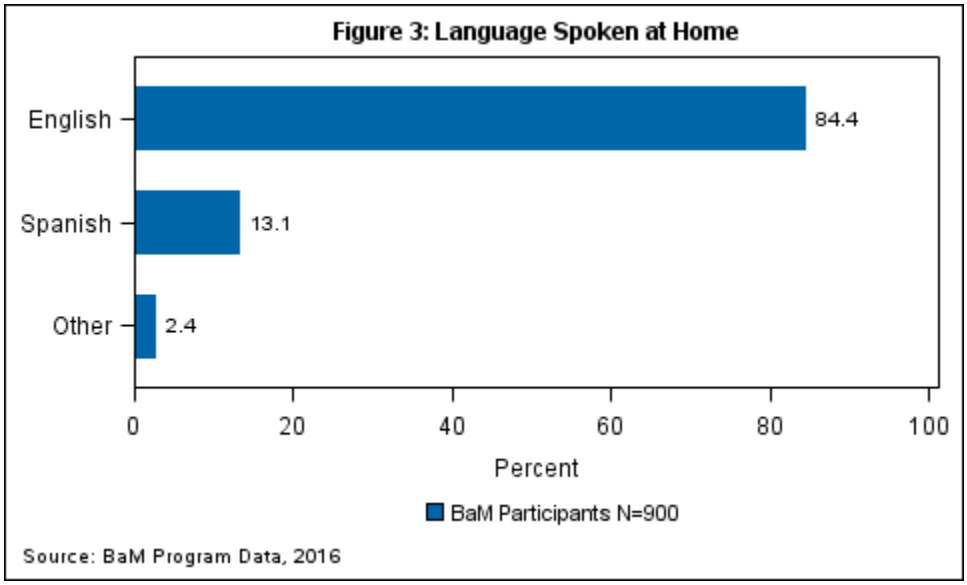
Site Name	Pre-Survey	Post-Survey	Outcome**
Clay County	14	15	13
Crawford County	74	26	25
Dickinson County	21	12	8
Geary County	204	151	86
Lyon County	137	107	102
Reno County	165	98	72
Riley County	185	108	110
Saline County	147	98	77
Sedgwick County	352	235	99
Wyandotte County	148	82	104
Total	**1447**	**932**	**696**

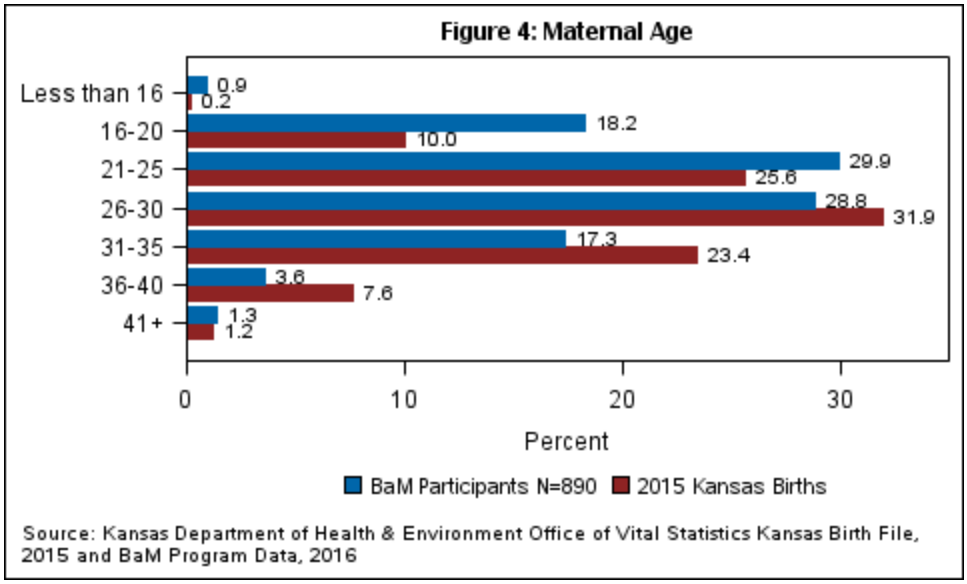
*The data represent participants who completed the respective form in 2016 as well as any participant who submitted a form in DAISEY in November or December 2015. (DAISEY launched November 1, 2015, therefore these participants were not reflected in the 2015 report).
**Note: This number reflects the number of mothers who completed the outcome survey (therefore does not reflect each baby in a birth of multiples).

The predominant racial/ethnic group was non-Hispanic white (55.8%), followed by Hispanic (25.9%), non-Hispanic black (9.6%) and non-Hispanic others (8.8%) (Figure 2). The majority of women (84.4%) reported speaking English at home (Figure 3), which is a lower percentage than the state in general which reports 95.2% primarily speaking English.[2] Age of participants ranged from less than 16 years to over 40 years,

with the majority of participants being in their 20s (Figure 4). Overall, the Becoming a Mom /Comenzando bien® (BaM/Cb) participant demographics suggests the program is reaching a more diverse population than is representative of the population of the state at large (based on 2015 births), which is an aim of the program.







Descriptive Characteristics

Employment status varied among participants, with the highest percentage being unemployed (Figure 5). A third (32.2%) of the participants reported having a college degree, while 44.1% of the participants reported having only a high school degree or less (Figure 6). The BaM/Cb programs appear to be doing a great job reaching the higher risk population that has a lower education level (proportionally higher percent than all Kansas births in 2015). About half of the participants (52.9%) were enrolled in Women, Infants, and Children (WIC) (Figure 7), which is higher than the overall percentage of enrollment among 2015 births (33.3%), indicating integration efforts between the two programs have been successful. Thirty-six percent of the participants were insured by KanCare/Medicaid (higher percent than all Kansas births in 2015), 35.5% were insured by private insurance (lower percent than all Kansas births in 2015) and 17.6 percent did not have insurance (higher percent than all Kansas births in 2015) (Figure 8). Again this data supports the program's aim to reach the uninsured/underinsured population that is at greater risk of poor health and birth outcomes. The majority (57.4%) of the BaM/Cb participants were experiencing their first pregnancy (Figure 9). As well, the majority (84.9%) of participants initiated prenatal care in the first trimester (Figure 10), a proportion slightly higher than that of all Kansas births in 2015 (81.7%). About 1 in 13 (7.8%) participants reported being a smoker in the pre-survey (Figure 11). One in 7 (14.3 %) participants were told they have a high risk pregnancy (Figure 12). While the majority of participants (65.5%) reported not having a health problem, the two most common health conditions were asthma (11.9%) and depression (12.4%) (Figure 13). The majority (54.1%) of participants heard about BaM/Cb through a clinic, indicating the collaborative nature of program implementation between public health and clinical providers is working. Almost half (53.4%) of participants started the program in their second trimester, which is a targeted entry point for the program (Figure 15). Out of 441 participants with an Edinburgh score recorded, 23.6% need a referral based on their Edinburgh score of 10 or greater (Figure 16), further supporting the need for integrated screening and referral systems as established in the Kansas community collaborative program model through the "Mental Health Integration Toolkit". The majority (91.0%) of participants reported not having anything keeping them from their prenatal appointments (Figure 17).

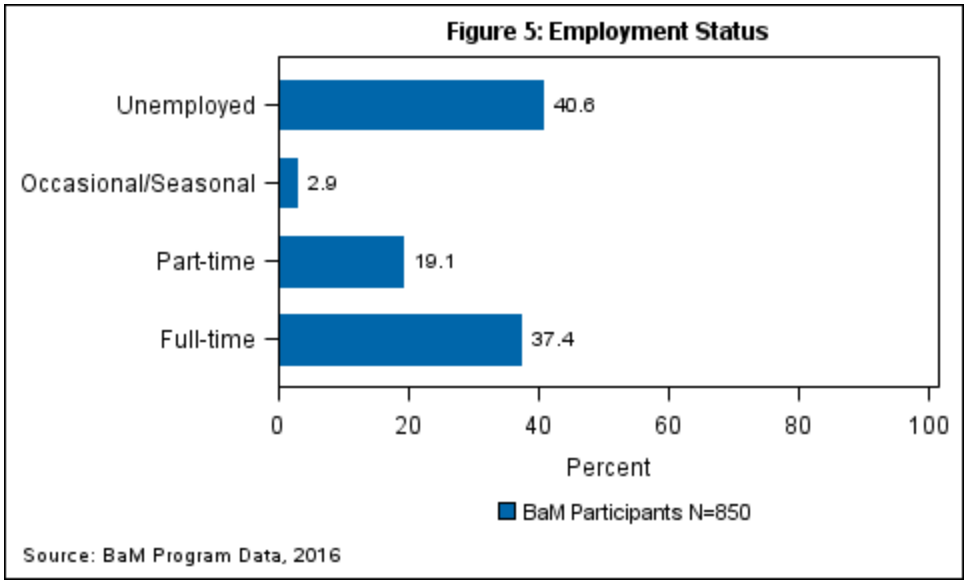


Figure 5: Employment Status
Unemployed
Occasional/Seasonal
Part-time
Full-time
40.6
2.9
19.1
37.4
0
20
40
60
80
100
Percent
BaM Participants N=850
Source: BaM Program Data, 2016

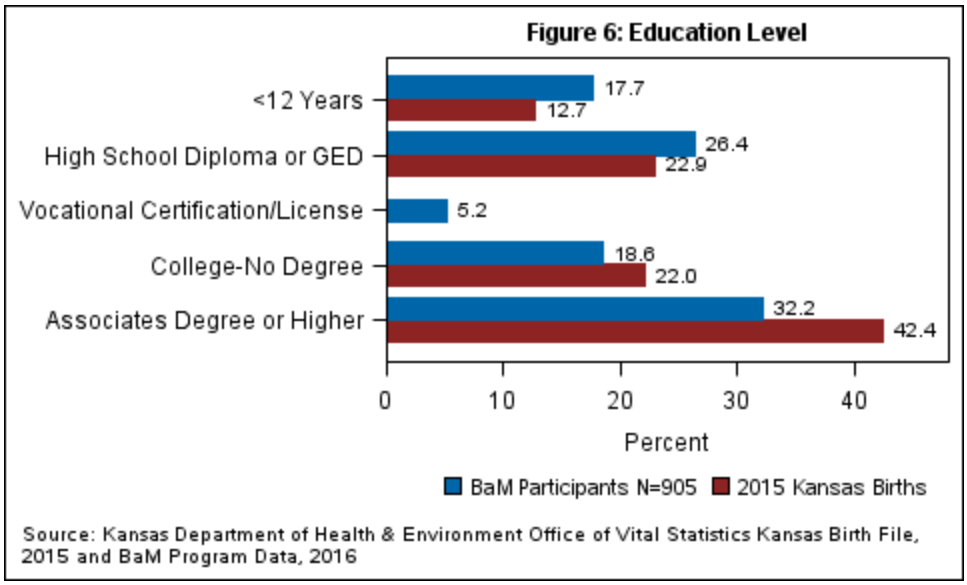


Figure 6: Education Level
<12 Years
High School Diploma or GED
Vocational Certification/License
College-No Degree
Associates Degree or Higher
17.7
12.7
26.4
22.9
5.2
18.6
22.0
32.2
42.4
0
10
20
30
40
Percent
BaM Participants N=905
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

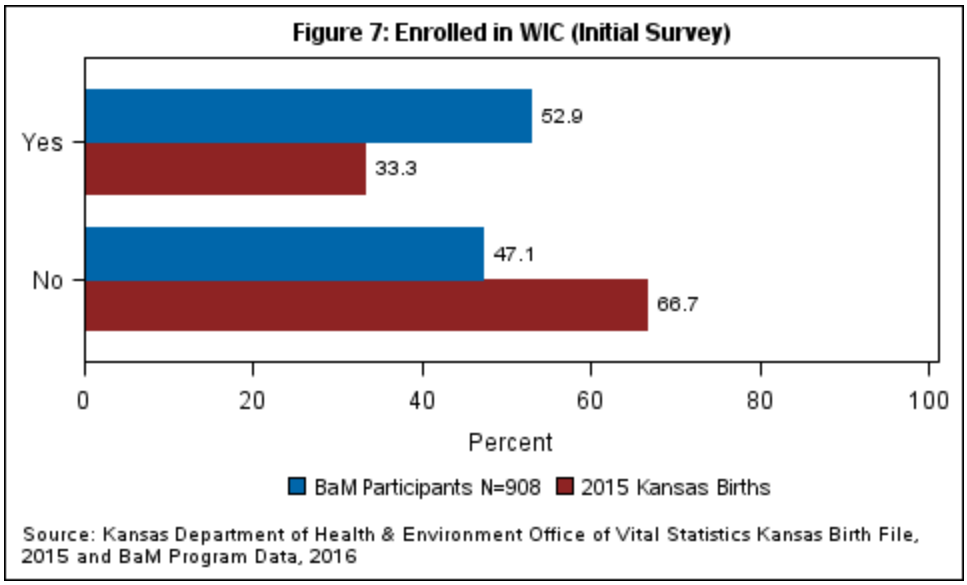


Figure 7: Enrolled in WIC (Initial Survey)
Yes
No
52.9
33.3
47.1
66.7
0
20
40
60
80
100
Percent
BaM Participants N=908
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

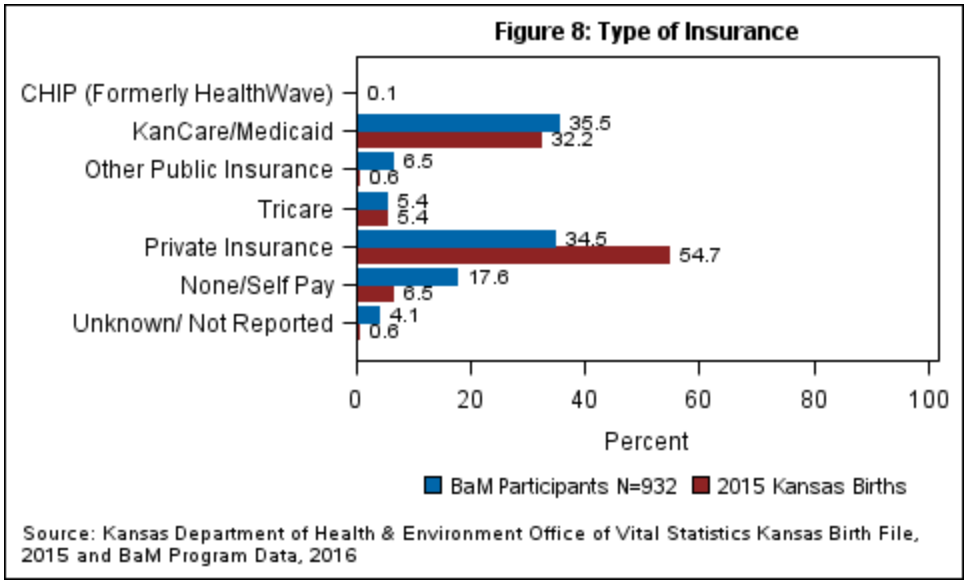


Figure 8: Type of Insurance
CHIP (Formerly HealthWave)
KanCare/Medicaid
Other Public Insurance
Tricare
Private Insurance
None/Self Pay
Unknown/ Not Reported
0.1
35.5
32.2
6.5
0.6
5.4
5.4
34.5
54.7
17.6
6.5
4.1
0.6
0
20
40
60
80
100
Percent
BaM Participants N=932
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

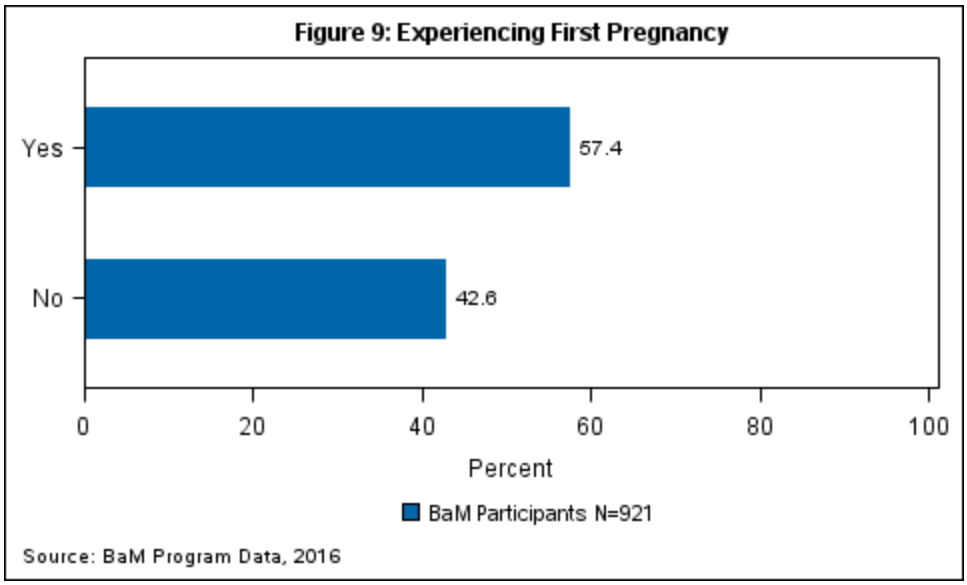


Figure 9: Experiencing First Pregnancy
Yes
No
57.4
42.6
0
20
40
60
80
100
Percent
BaM Participants N=921
Source: BaM Program Data, 2016

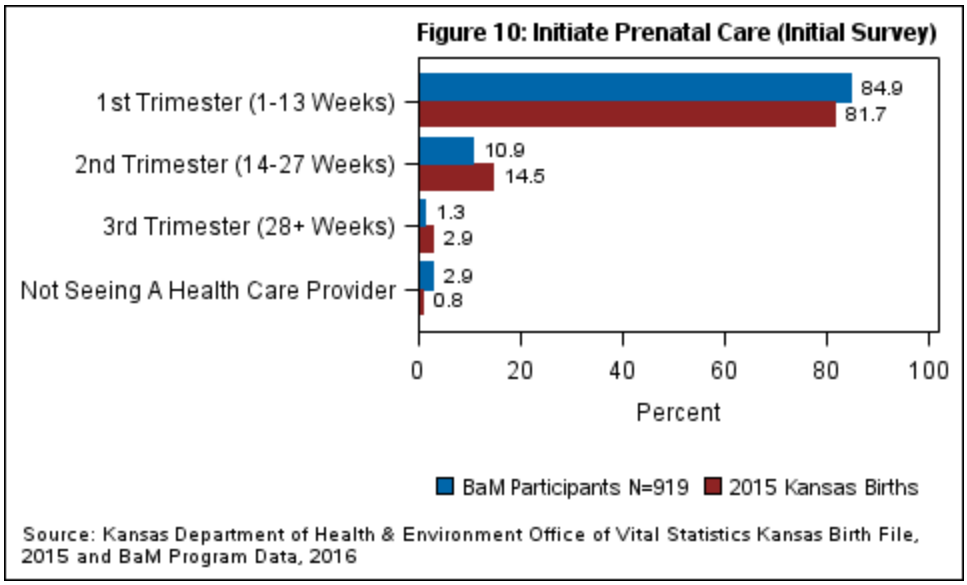


Figure 10: Initiate Prenatal Care (Initial Survey)
1st Trimester (1-13 Weeks)
2nd Trimester (14-27 Weeks)
3rd Trimester (28+ Weeks)
Not Seeing A Health Care Provider
84.9
81.7
10.9
14.5
1.3
2.9
2.9
0.8
0
20
40
60
80
100
Percent
BaM Participants N=919
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

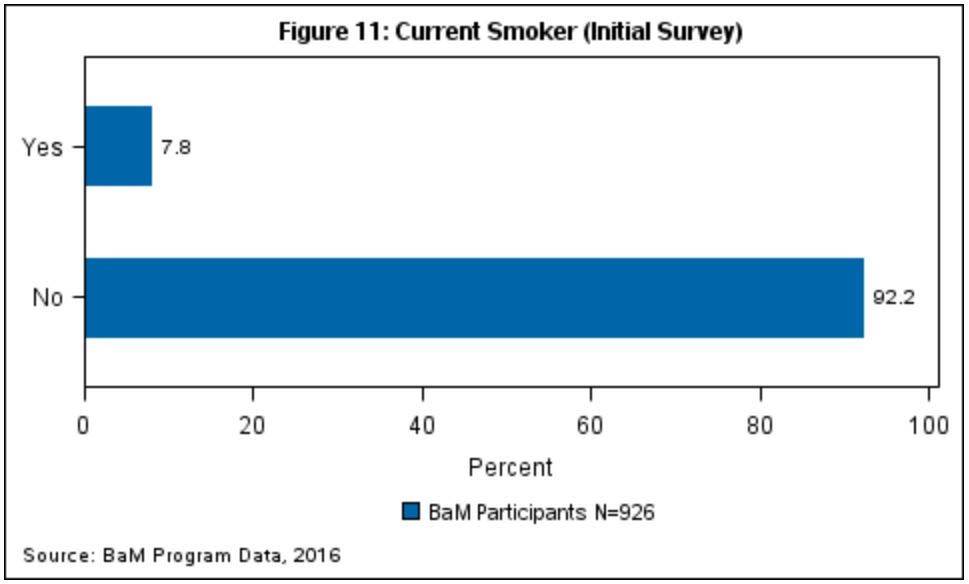


Figure 11: Current Smoker (Initial Survey)
Yes
No
7.8
92.2
0
20
40
60
80
100
Percent
BaM Participants N=926
Source: BaM Program Data, 2016

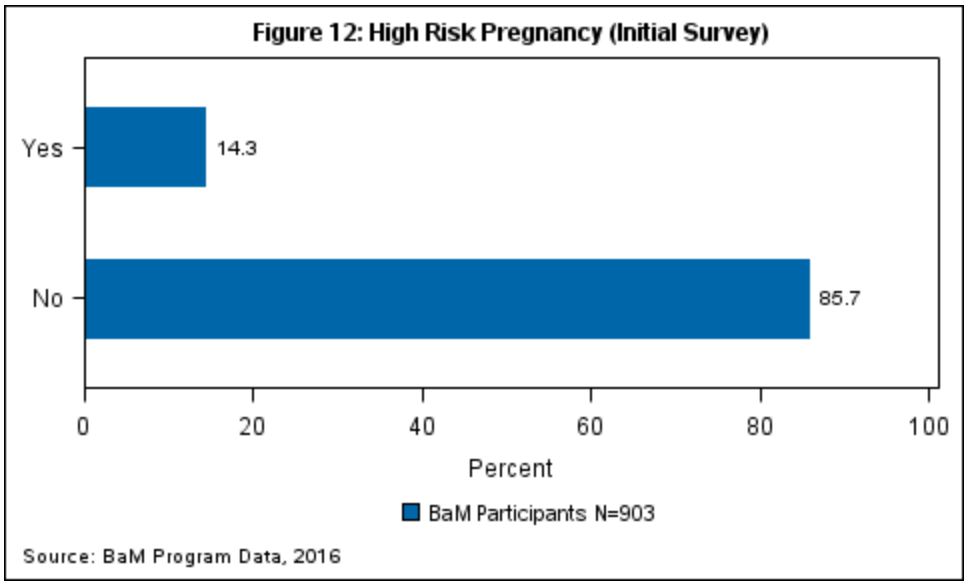


Figure 12: High Risk Pregnancy (Initial Survey)
Yes
No
14.3
85.7
0
20
40
60
80
100
Percent
BaM Participants N=903
Source: BaM Program Data, 2016

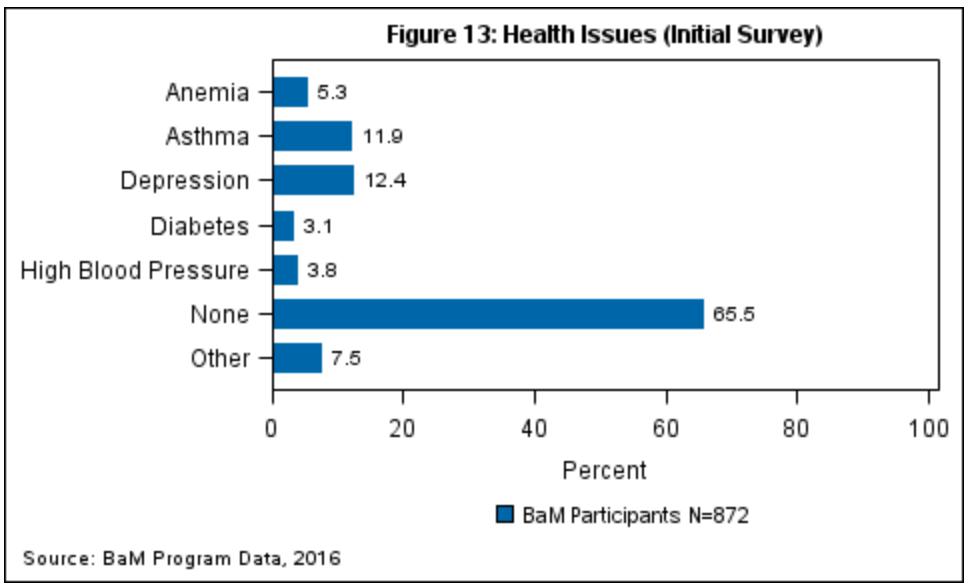


Figure 13: Health Issues (Initial Survey)
Anemia
Asthma
Depression
Diabetes
High Blood Pressure
None
Other
5.3
11.9
12.4
3.1
3.8
65.5
7.5
0
20
40
60
80
100
Percent
BaM Participants N=872
Source: BaM Program Data, 2016

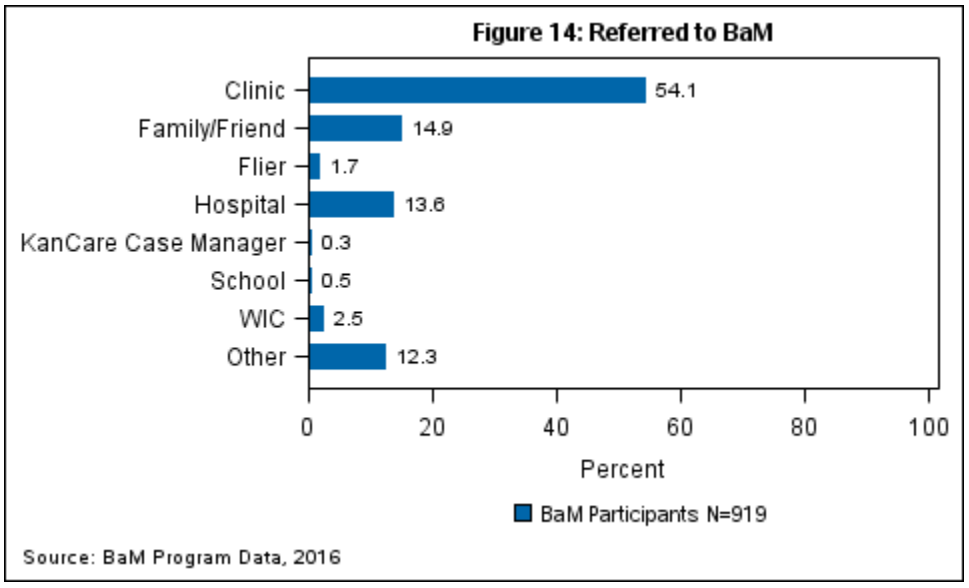


Figure 14: Referred to BaM
Clinic
Family/Friend
Flier
Hospital
KanCare Case Manager
School
WIC
Other
54.1
14.9
1.7
13.6
0.3
0.5
2.5
12.3
0
20
40
60
80
100
Percent
BaM Participants N=919
Source: BaM Program Data, 2016

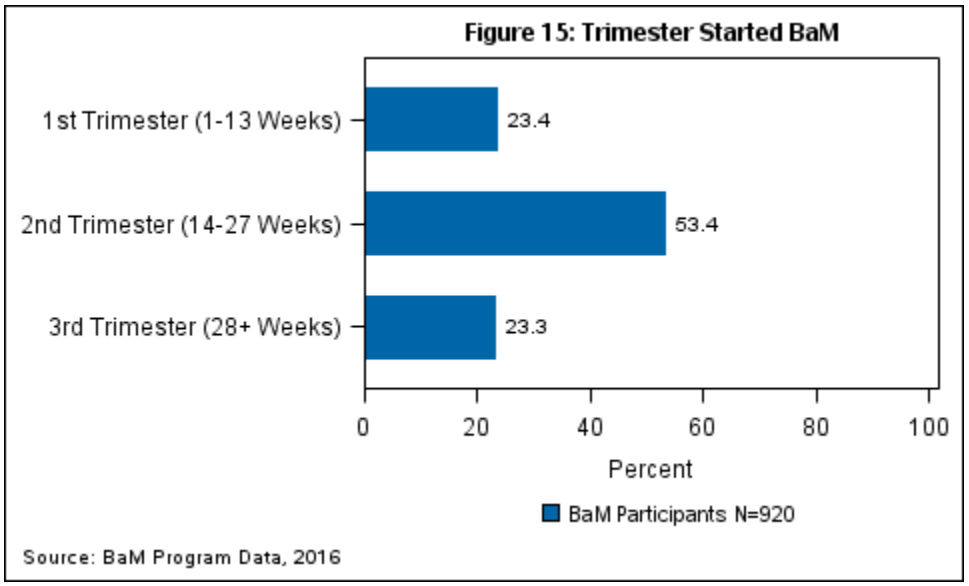
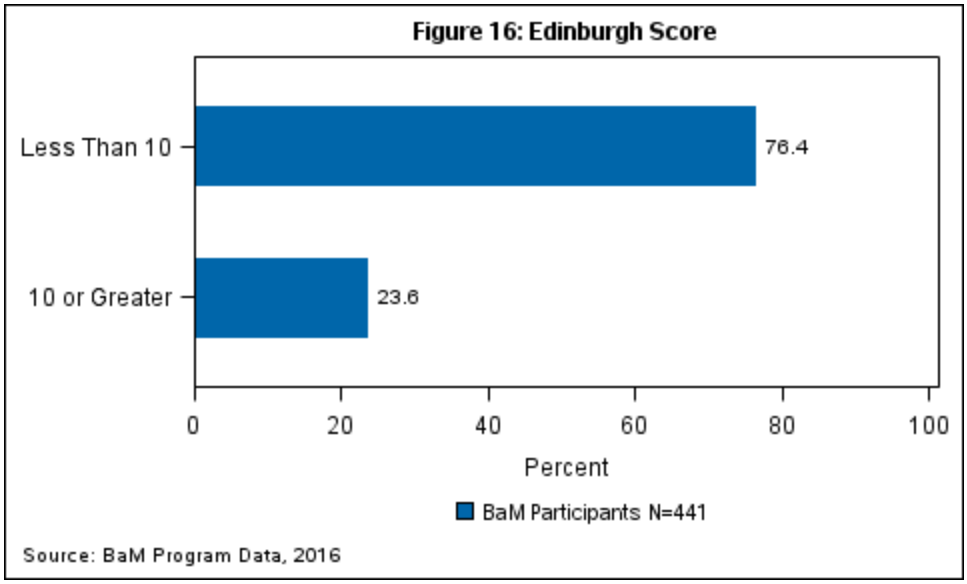
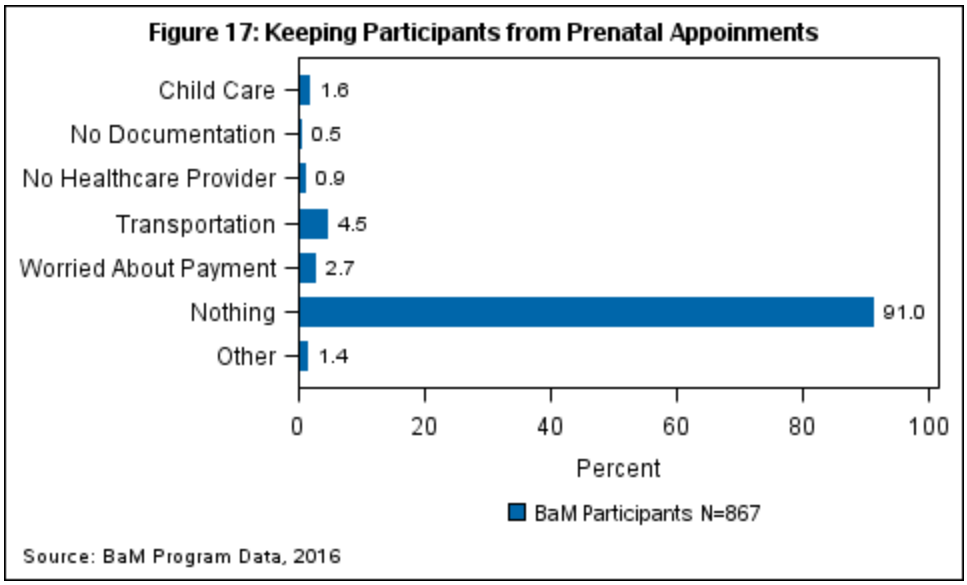


Figure 15: Trimester Started BaM
1st Trimester (1-13 Weeks)
2nd Trimester (14-27 Weeks)
3rd Trimester (28+ Weeks)
23.4
53.4
23.3
0
20
40
60
80
100
Percent
BaM Participants N=920
Source: BaM Program Data, 2016





Change in Knowledge/Behavior

Figures 18-29 display questions that were added to the evaluation tools upon revision and the launch of DAISEY.

Post-intervention, participants report they were more likely to talk to a healthcare provider or access available resources if she experienced depression and/or anxiety during or after pregnancy (Figure 18). Participants also reported being more knowledgeable about available resources in the community related to depression and/or anxiety (Figure 19). This data supports the benefit of the integrated mental health component, which focuses on education, screening, and referral. The majority of participants were already likely to discuss medications with a healthcare provider before taking them (Figure 20). Furthermore, the majority of participants already knew alcohol, marijuana, methamphetamine and narcotics should never be taken during pregnancy (Figure 21). There was minimal change in the number of cigarettes smoked per day from pre to post survey. About 9 in 10 participants were non-smokers during

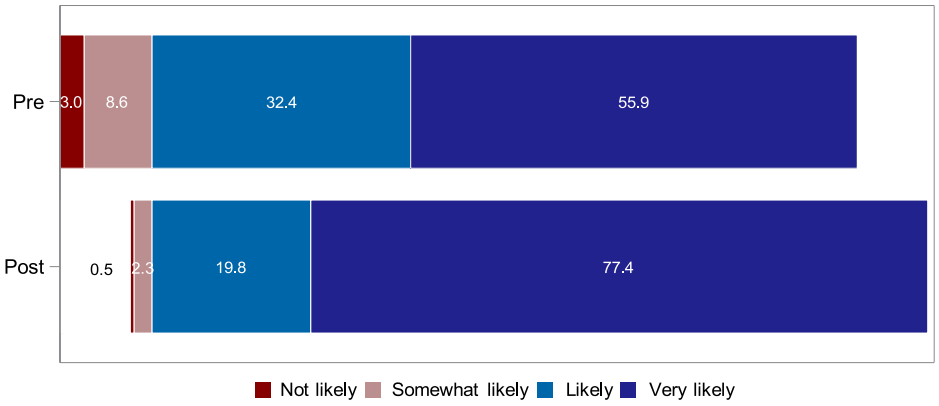
their time in BaM/Cb. Most of the women who did smoke, reported smoking less than a pack a day (Figure 22).

There was a 9.4% increase in the number of women who reported being very likely to breastfeed, post-intervention (Figure 23). Additionally following program completion, participants were significantly more knowledgeable about resources available to help with breastfeeding (Figure 24) and had gained confidence in their ability to breastfeed (Figure 25). This data strongly supports the great benefit of the breastfeeding education and support component that has been integrated into the BaM/Cb program.

There was slight increase in participants' likelihood of discussing a plan for pregnancy prevention with their provider during their prenatal care (Figure 26). Post-program, more participants believe there is great benefit to waiting 18-24 months between pregnancies (Figure 27).

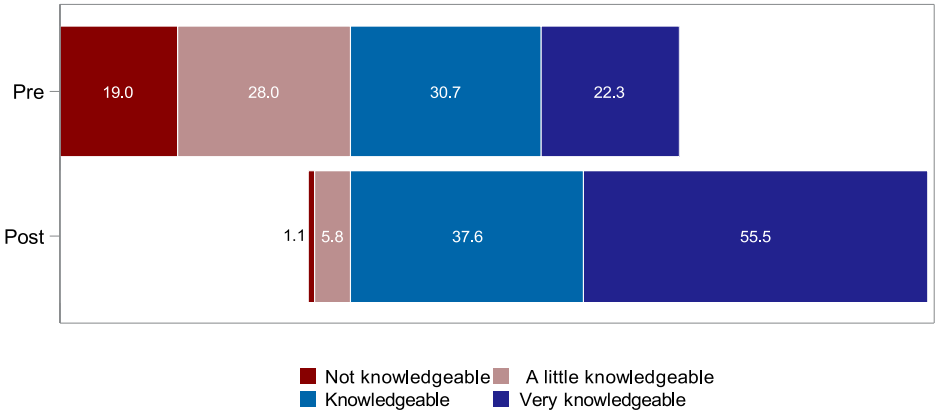
There was minimal improvement in participants' intake of a multivitamin or folic acid (Figure 28). Participants showed a slight increase in the number of days per week they do 30 minutes of low-impact to moderate exercise (Figure 29).

Figure 18: If I experience depression and/or anxiety during or after my pregnancy, I am ___to talk with my healthcare provider and/or access available resources



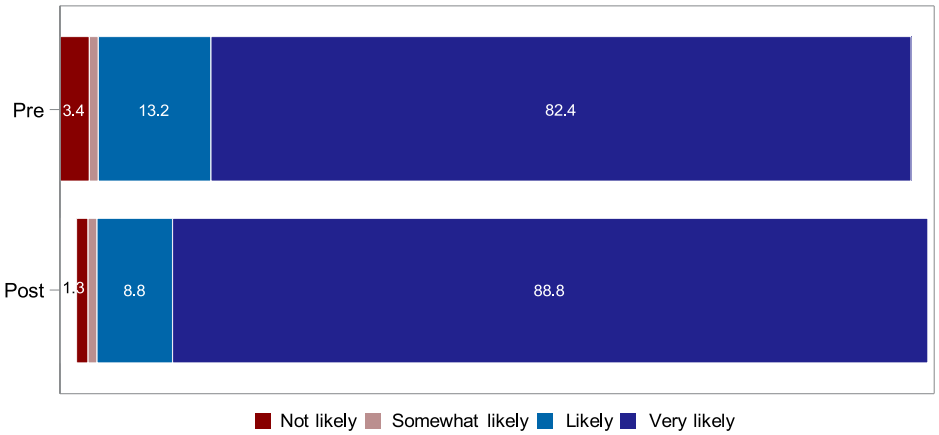
N=833
Source: BaM Program Data, 2016

Figure 19: If I experience depression and/or anxiety during or after my pregnancy, I am ___about available resources in my community



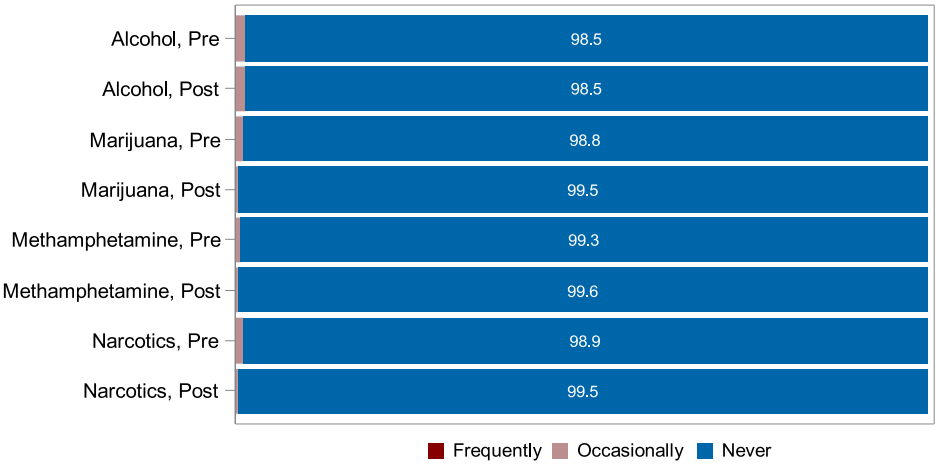
N=840
Source: BaM Program Data, 2016

Figure 20: If I am considering taking medication I am ____to talk to my healthcare provider before taking them



N=834
Source: BaM Program Data, 2016

Figure 21: I believe I can use _____without harming my baby

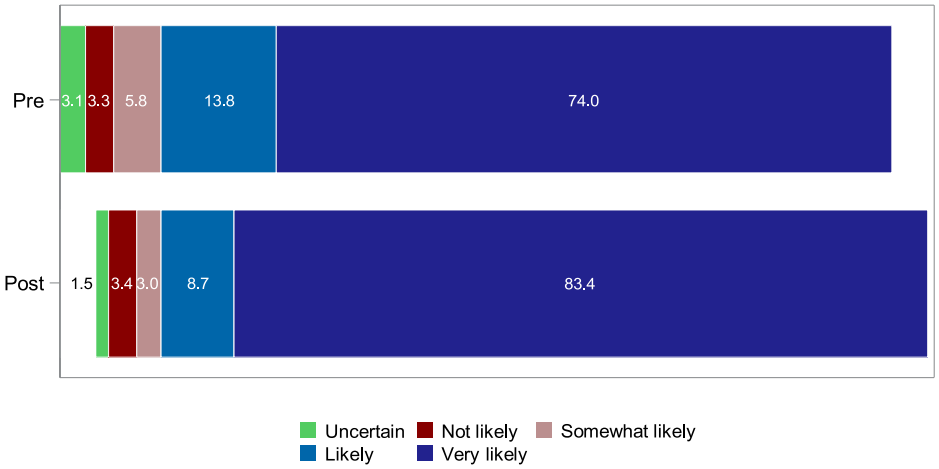


N=848
Source: BaM Program Data, 2016

Figure 22: I currently smoke ____cigarettes per day

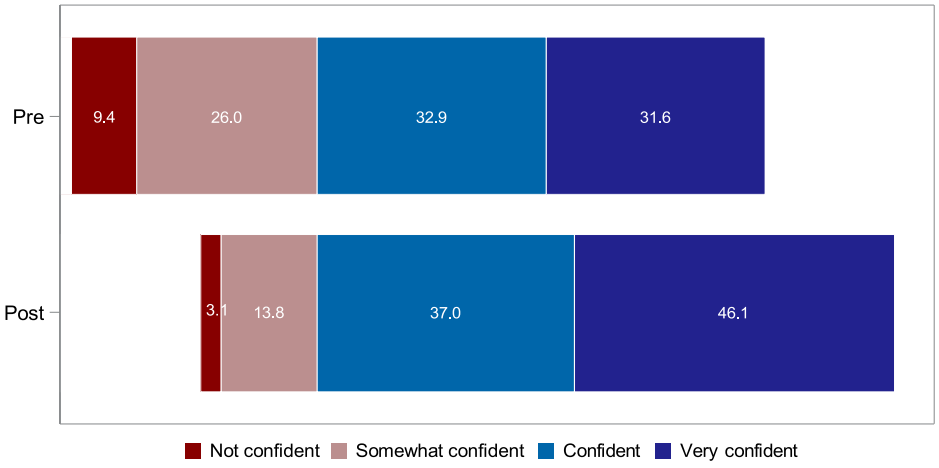
N=850
Source: BaM Program Data, 2016

Figure 23: I am ___to breastfeed my baby



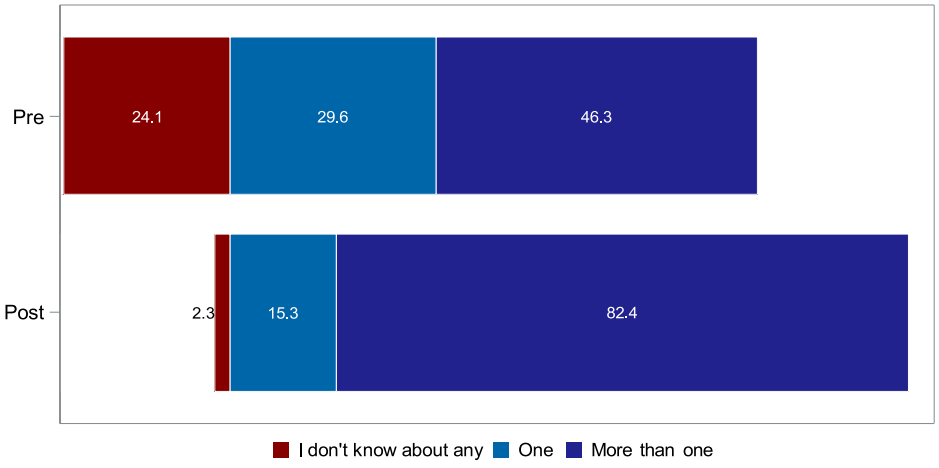
N=843
Source: BaM Program Data, 2016

Figure 24: I am ___in my ability to breastfeed my baby



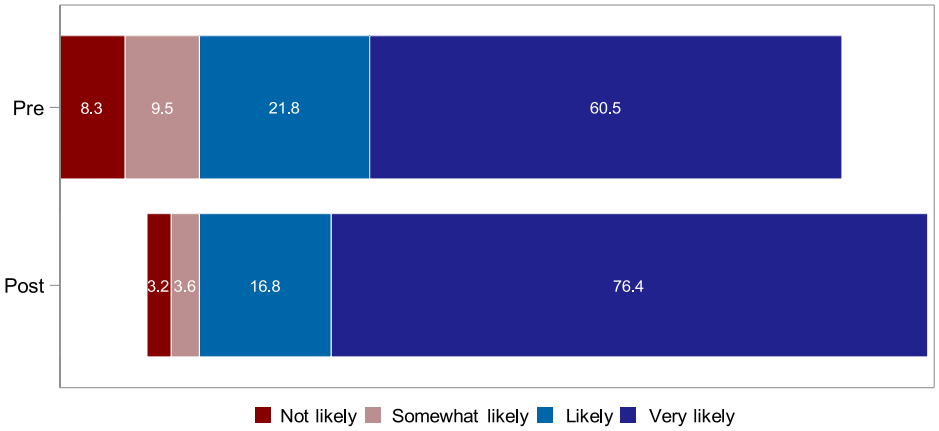
N=838
Source: BaM Program Data, 2016

Figure 25: I know about ___available resources for breastfeeding support



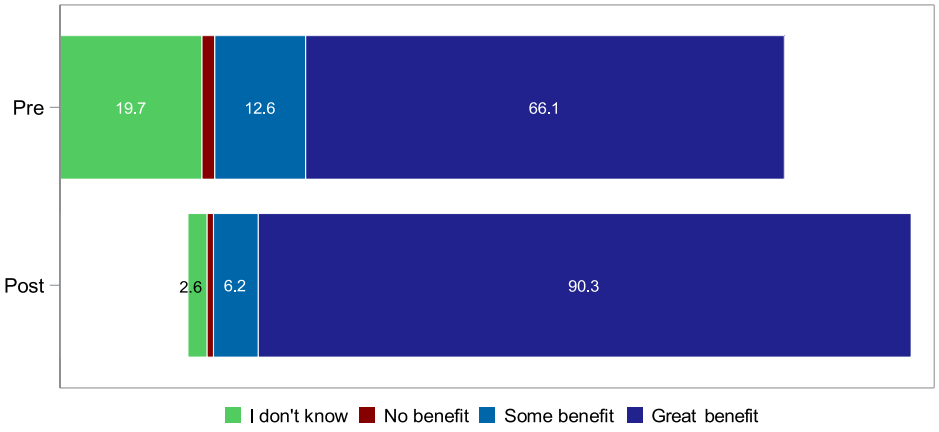
N=829
Source: BaM Program Data, 2016

Figure 26: I am ___to talk to my healthcare provider during my prenatal care about methods for preventing pregnancy after the birth of my baby



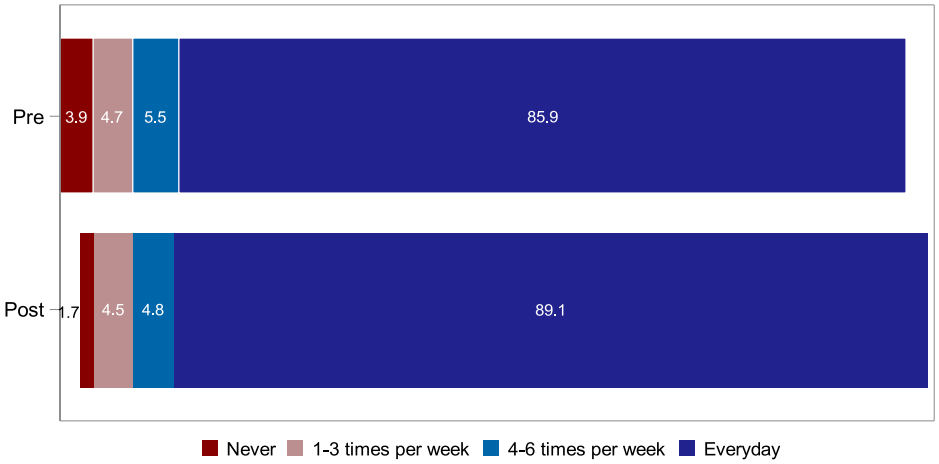
N=845
Source: BaM Program Data, 2016

Figure 27: I believe there is ___benefit for waiting 18-24 months between pregnancies



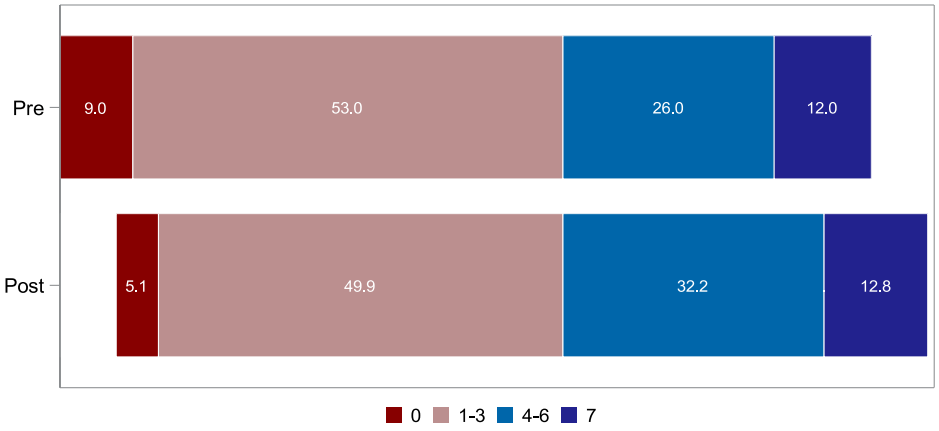
N=844
Source: BaM Program Data, 2016

Figure 28: I currently take prenatal or multi-vitamins containing folic acid:



N=851
Source: BaM Program Data, 2016

Figure 29: I walk or do at least 30 minutes of moderate, low-impact physical activity ___days per week



N=845
Source: BaM Program Data, 2016

All six questions related to preterm labor signs had statically significant improvements from pre to post surveys (Table 2). Questions related to what a woman should do if she is experiencing preterm labor symptoms all showed improvement. Calling a health provider showed a statistically significant increase. Resting and drinking water questions both had statistically significant improvements, with 75.7% and 66.9% of the women answering correctly in the post-survey. Participants showed slight improvement, but not statistically significant, for answering correctly to the response of "do nothing, and wait for an hour or two to see if the symptoms go away.

Questions related to postpartum symptoms all had statically significant improvements. Participants were more likely to correctly identify normal postpartum symptoms such as differences in bladder control, night sweats, baby blues, and needing a nap on the completion survey. Also on the post-survey, participants were less likely to identify abnormal postpartum symptoms as normal, such as bleeding more than a pad an hour after discharge, fever, extreme fatigue, panic and lack of interest in the baby.

Participants reported greater knowledge about "back to sleep" and safe sleep environment. They additionally demonstrated planned change in behavior, as there was a nearly 19% increase pre (76.4%) to post (95.2%) intervention in those who reported planning to place their baby on his/her back to sleep, with roughly 96% also reporting plans to place their baby in a safe sleep environment. This data strongly supports the benefit of the integrated safe sleep education component into the infant care session. Participants were also able to demonstrate increased knowledge about the benefits of full term pregnancy and truths about breastfeeding.

Table 2: Pre/Post-Intervention Answers to Knowledge Questions (percentage answering correctly)

Question	Pre-Survey (%)	Post-Survey (%)
Signs of Preterm Labor		
Contractions	**53.7**	**83.6**
Color of discharge or bleeding	**45.0**	**75.7**
Feeling that baby is pushing down	**38.4**	**71.5**
Backache	**27.0**	**61.6**
Belly cramps	**24.4**	**59.4**

Cramps that feel like your period	**35.1**	**67.5**
Should a pregnant woman do the following if she is experiencing preterm labor		
Call her health care provider right away	**76.2**	**84.6**
Stop what she is doing & rest on her left side for one hour	**33.4**	**75.7**
Drink 2-3 glasses of water or juice (not coffee or soda)	**30.7**	**66.9**
Do nothing, and wait for an hour or two to see if the symptoms go away	72.7	75.9
Postpartum Symptoms		
After discharge from the hospital, bleeding more than a pad in an hour	**46.8**	**66.0**
Fever	**63.2**	**81.3**
Difference in bladder control	**38.4**	**66.7**
Night sweats	**16.9**	**42.7**
Extreme fatigue	**48.6**	**65.2**
Baby blues	**39.4**	**72.3**
Non-stop crying	**56.3**	**74.3**
Panic	**55.1**	**73.4**
Needing a nap	**51.0**	**77.6**
Lack of interest in baby	**56.6**	**73.7**
*Benefits of Full Term Pregnancy***		
Full brain development	**84.5**	**94.4**
Full lung development	**84.9**	**92.6**
Less likely to be admitted to NICU	**73.5**	**83.0**
Improved breastfeeding	**64.3**	**75.9**
*Truths about breastfeeding***		
My baby will be less likely to have diabetes later in life	**40.7**	**74.8**
I will lower my risk of some types of cancer	**43.5**	**77.0**
Frequency of breastfeeding within the first 48 hours after birth can have an effect on producing enough milk	**46.6**	**78.2**
My breastfeeding experience should not be painful	**32.6**	**69.4**
Safe Sleep		
Baby sleep position (back)	**76.4**	**95.2**
Baby sleep location (crib, bassinet or portable crib)	**87.5**	**95.8**

Statistical significant change from pre to post survey is **bolded**.
The participant needs to have a response in both the pre and post survey to be included in the table.
** These questions were added to the DAISEY module; therefore, not every participant had the opportunity to answer the questions

Outcomes

The reported preterm birth rate (<37 weeks) was 8.1% for program participants (Figure 30). This is slightly lower than the state rate of 8.8%. Six percent of the births were considered low birth weight (less than 2500 grams), which is again slightly lower than the state rate of 6.9% (Figure 31). The percentage of babies born with low birth weight was lower than the Healthy People 2020 target of 7.8%.[3] These results are important given the program is reaching a greater disparity group and higher risk population base when compared to the 2015 Kansas births.

Twenty-eight percent of the births for the BaM/Cb participants ended in a cesarean delivery, compared to 29.6% of all 2015 births statewide (Figure 32). For the participants who had a cesarean delivery, the majority (82.7%) reported it was medically necessary/doctor recommended (Figure 33). Forty-one percent of BaM/Cb participants were induced, compared to 30.1% of all Kansas births in 2015 (Figure 34). Of the participants who were induced, 21.4% reported it was elective (Figure 35).

Twenty-seven percent of the participants reported having a medical condition (Figure 36). For participants with a medical condition, the most common type was high blood pressure/pre-eclampsia (29.8%), followed by gestational diabetes (21.3%) (Figure 37).

Fifteen percent of the babies had a medical condition (Figure 38). Among babies with a medical condition, jaundice (29.0%) and respiratory conditions (29.0%) were the most commonly reported (Figure 39).

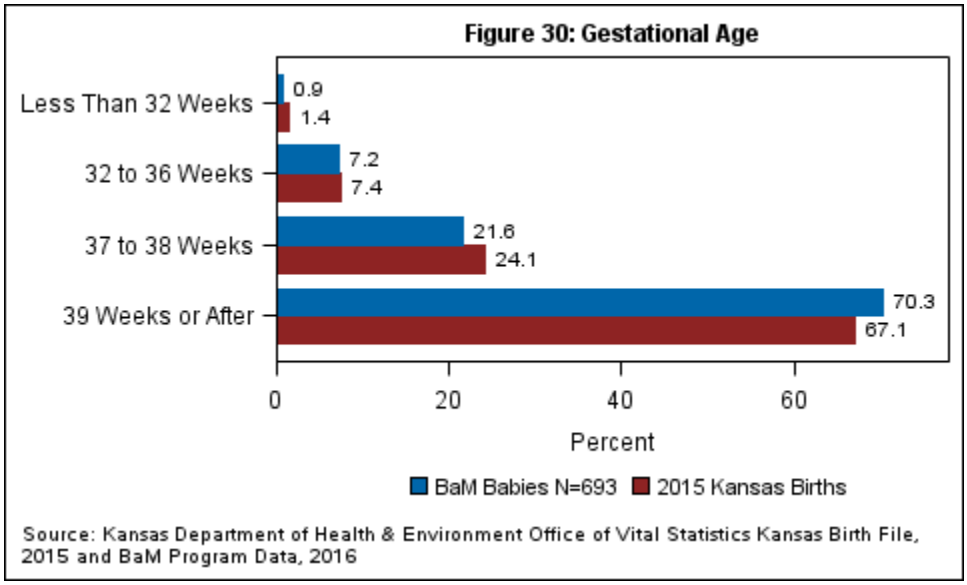
Breastfeeding initiation among program participants is at 94.0%, which is higher than the state rate of 87.4% (Figure 40). This is also higher than the Healthy People 2020 goal of 81.9% for infants who are ever breastfed.[3] Of the mothers who were still breastfeeding at the time of outcome survey completion, approximately two out three (65.5%) reported exclusively breastfeeding their baby (Figure 41). This data demonstrates how outcomes are improved when education and support is gained through targeted interventions such as the Becoming a Mom /Comenzando bien® (BaM/Cb) program.

A majority (84.1%) of women reported continued use of multivitamins after birth (Figure 42).

The majority (90.9%) of participants reported using a form of birth control (Figure 43).

Almost half (53.0%) of the babies are/will be insured by Medicaid (Figure 44).

The BaM/Cb program has connected the participants to many necessary services. The most popular services participants reported contacting or planning to contact include WIC (68.6%), breastfeeding support (63.1%) and Medicaid (56.5%) (Table 3). This data supports the work that has been done across program sites to promote and integrate such resources.



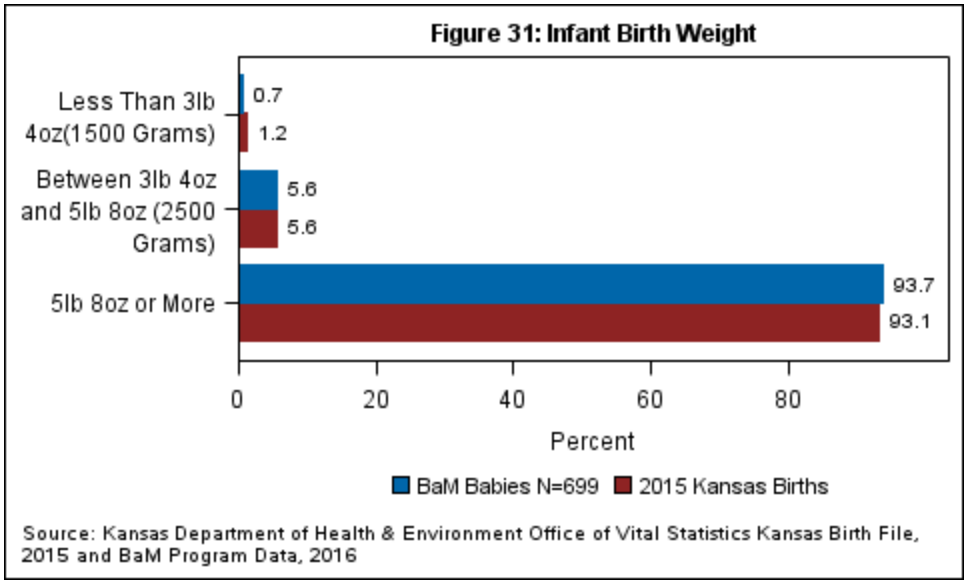


Figure 31: Infant Birth Weight
Less Than 3lb 4oz(1500 Grams)
Between 3lb 4oz and 5lb 8oz (2500 Grams)
5lb 8oz or More
0.7
1.2
5.6
5.6
93.7
93.1
0
20
40
60
80
Percent
BaM Babies N=699
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

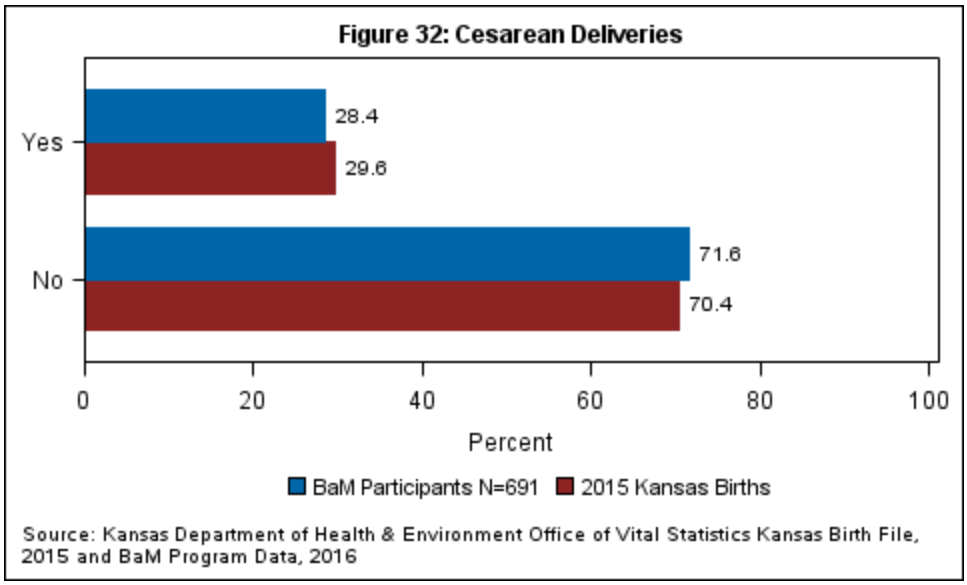


Figure 32: Cesarean Deliveries
Yes
No
28.4
29.6
71.6
70.4
0
20
40
60
80
100
Percent
BaM Participants N=691
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

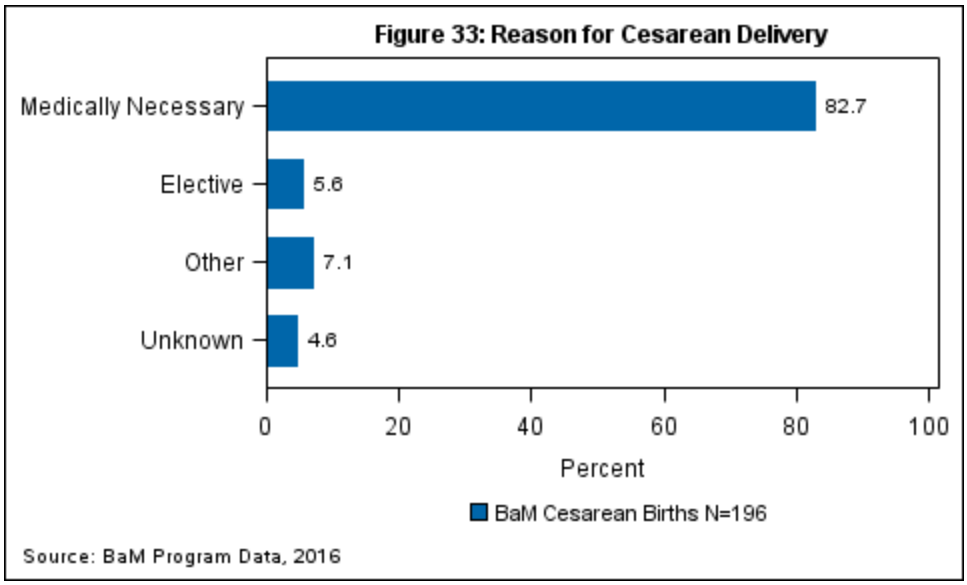


Figure 33: Reason for Cesarean Delivery
Medically Necessary
Elective
Other
Unknown
82.7
5.6
7.1
4.6
0
20
40
60
80
100
Percent
BaM Cesarean Births N=196
Source: BaM Program Data, 2016

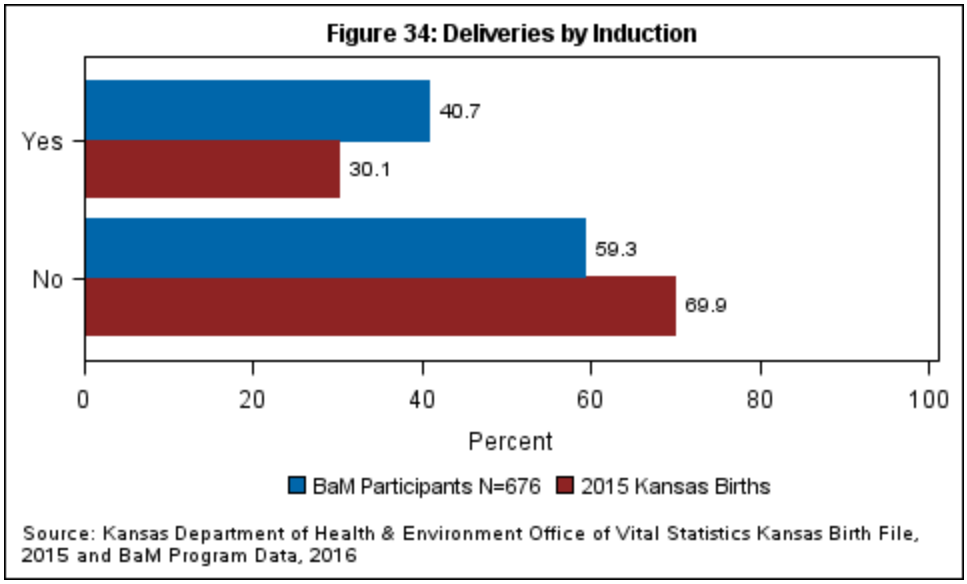


Figure 34: Deliveries by Induction
Yes
No
40.7
30.1
59.3
69.9
0
20
40
60
80
100
Percent
BaM Participants N=676
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

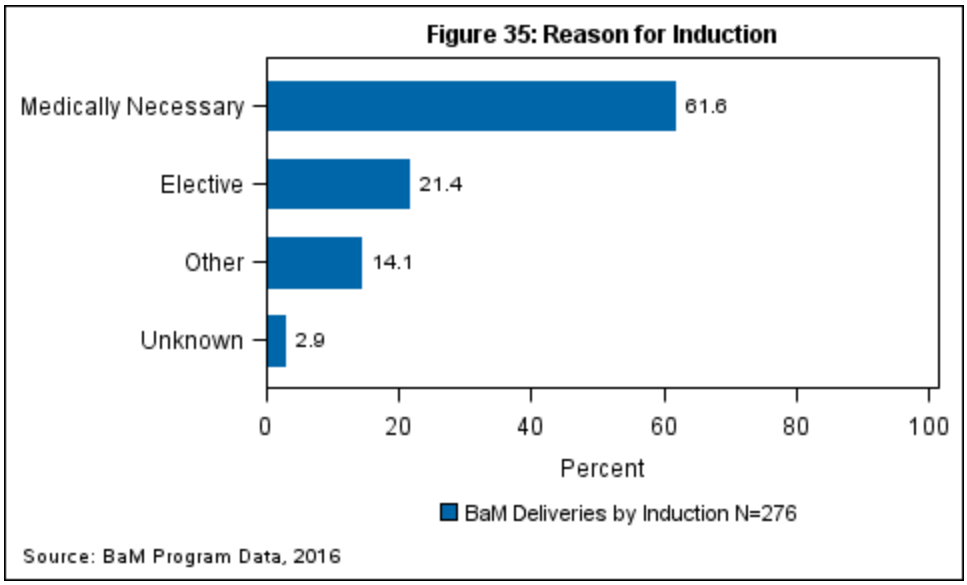


Figure 35: Reason for Induction
Medically Necessary
Elective
Other
Unknown
61.6
21.4
14.1
2.9
0
20
40
60
80
100
Percent
BaM Deliveries by Induction N=276
Source: BaM Program Data, 2016

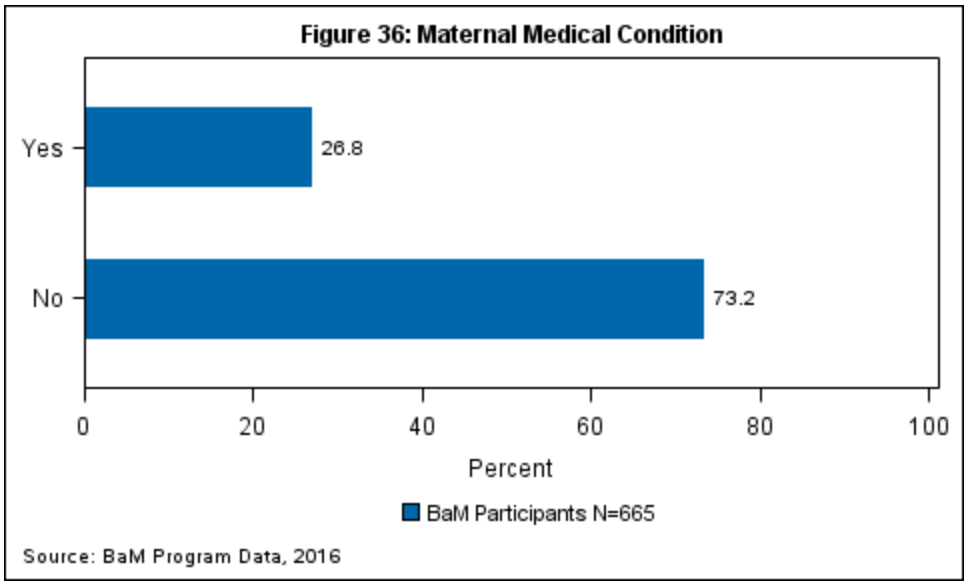


Figure 36: Maternal Medical Condition
Yes
No
26.8
73.2
0
20
40
60
80
100
Percent
BaM Participants N=665
Source: BaM Program Data, 2016

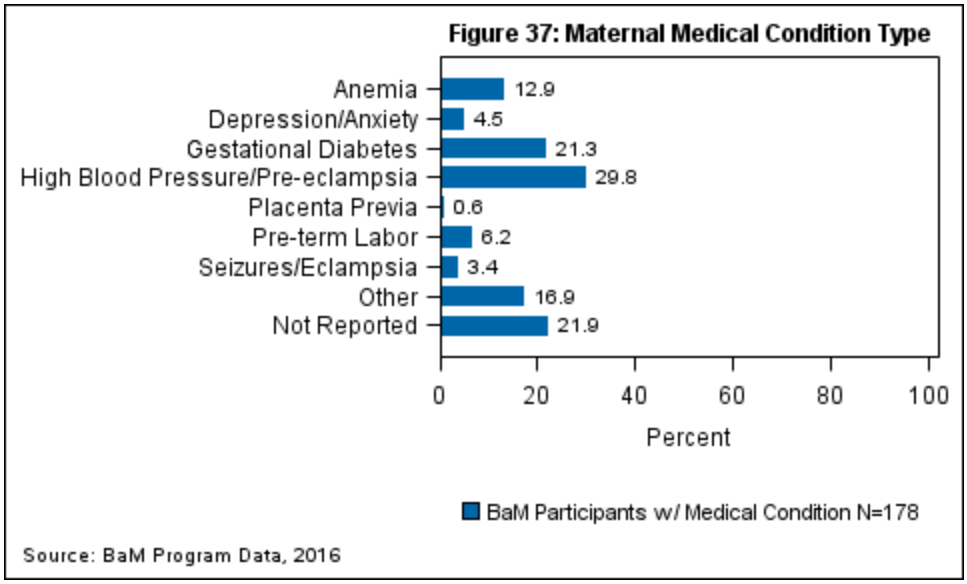


Figure 37: Maternal Medical Condition Type
Anemia
Depression/Anxiety
Gestational Diabetes
High Blood Pressure/Pre-eclampsia
Placenta Previa
Pre-term Labor
Seizures/Eclampsia
Other
Not Reported
12.9
4.5
21.3
29.8
0.6
6.2
3.4
16.9
21.9
0
20
40
60
80
100
Percent
BaM Participants w/ Medical Condition N=178
Source: BaM Program Data, 2016

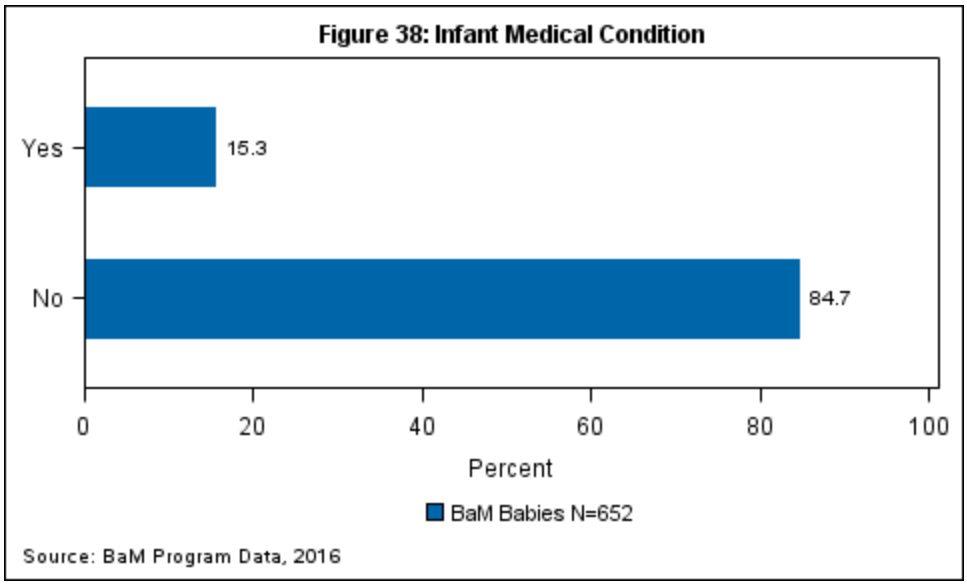


Figure 38: Infant Medical Condition
Yes
No
15.3
84.7
0
20
40
60
80
100
Percent
BaM Babies N=652
Source: BaM Program Data, 2016

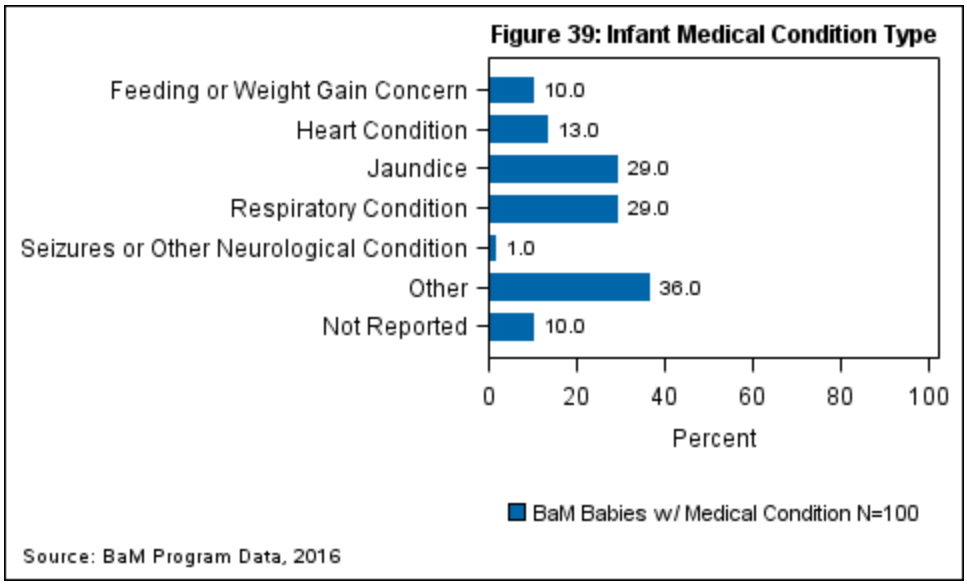


Figure 39: Infant Medical Condition Type
Feeding or Weight Gain Concern
Heart Condition
Jaundice
Respiratory Condition
Seizures or Other Neurological Condition
Other
Not Reported
10.0
13.0
29.0
29.0
1.0
36.0
10.0
0
20
40
60
80
100
Percent
BaM Babies w/ Medical Condition N=100
Source: BaM Program Data, 2016

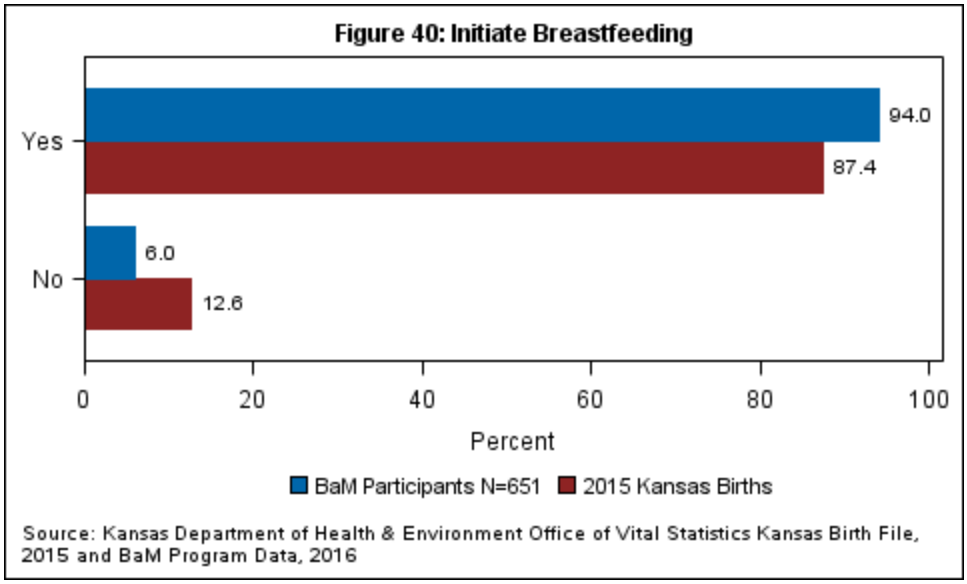


Figure 40: Initiate Breastfeeding
Yes
No
94.0
87.4
6.0
12.6
0
20
40
60
80
100
Percent
BaM Participants N=651
2015 Kansas Births
Source: Kansas Department of Health & Environment Office of Vital Statistics Kansas Birth File, 2015 and BaM Program Data, 2016

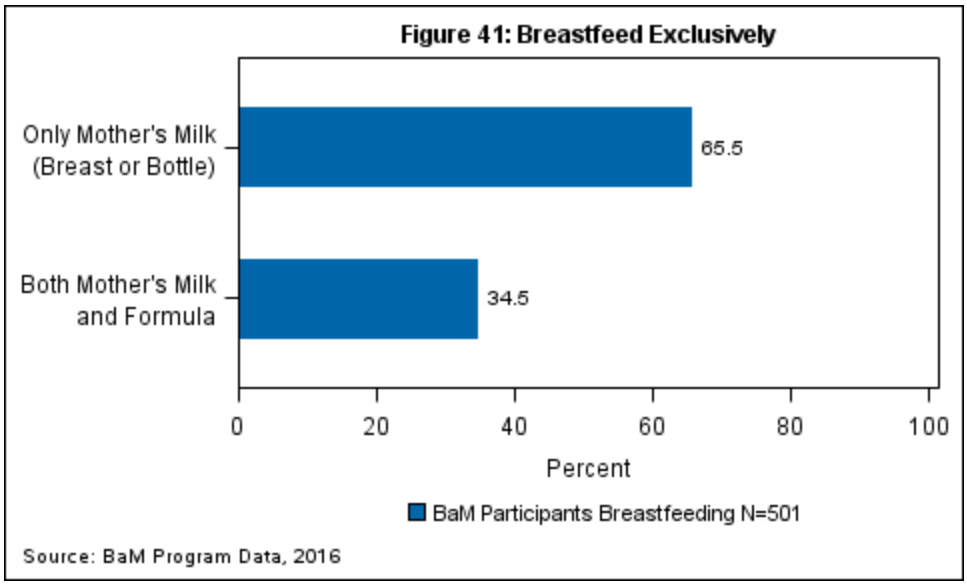


Figure 41: Breastfeed Exclusively
Only Mother's Milk (Breast or Bottle)
Both Mother's Milk and Formula
65.5
34.5
0
20
40
60
80
100
Percent
BaM Participants Breastfeeding N=501
Source: BaM Program Data, 2016

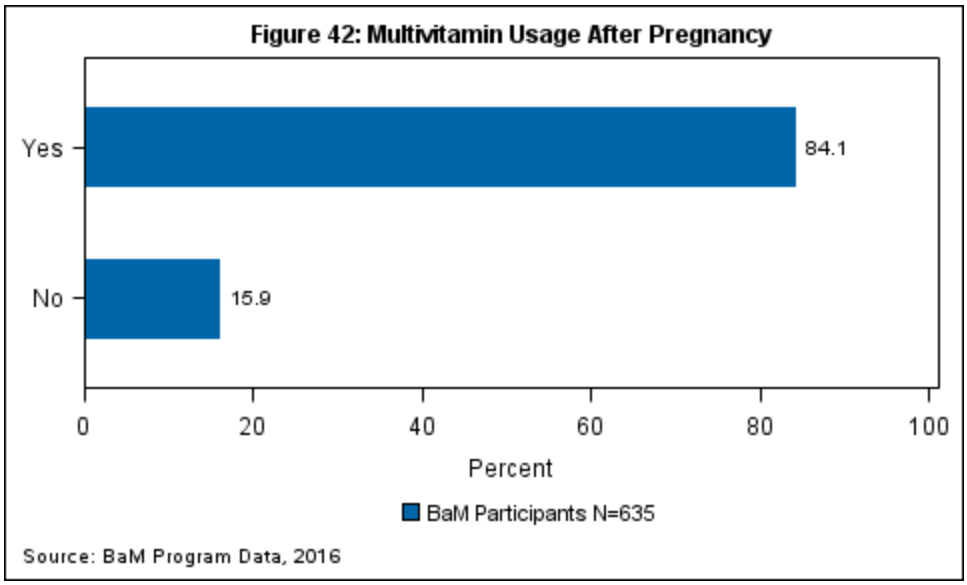
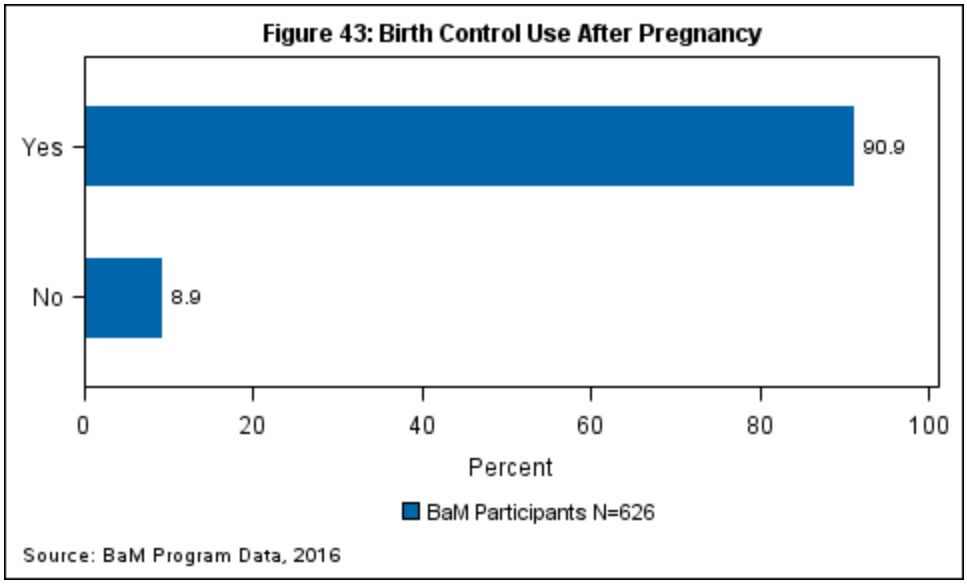


Figure 42: Multivitamin Usage After Pregnancy
Yes
No
84.1
15.9
0
20
40
60
80
100
Percent
BaM Participants N=635
Source: BaM Program Data, 2016



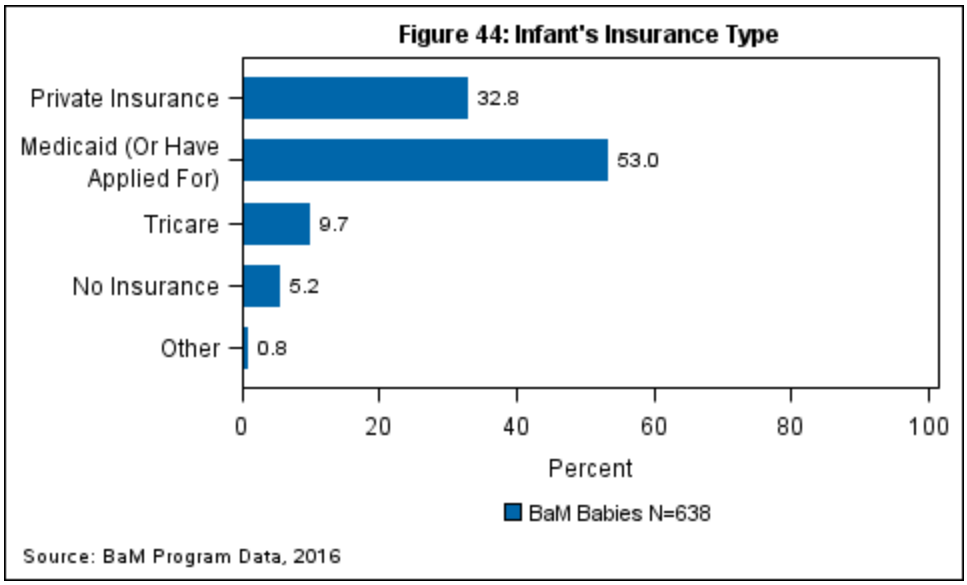


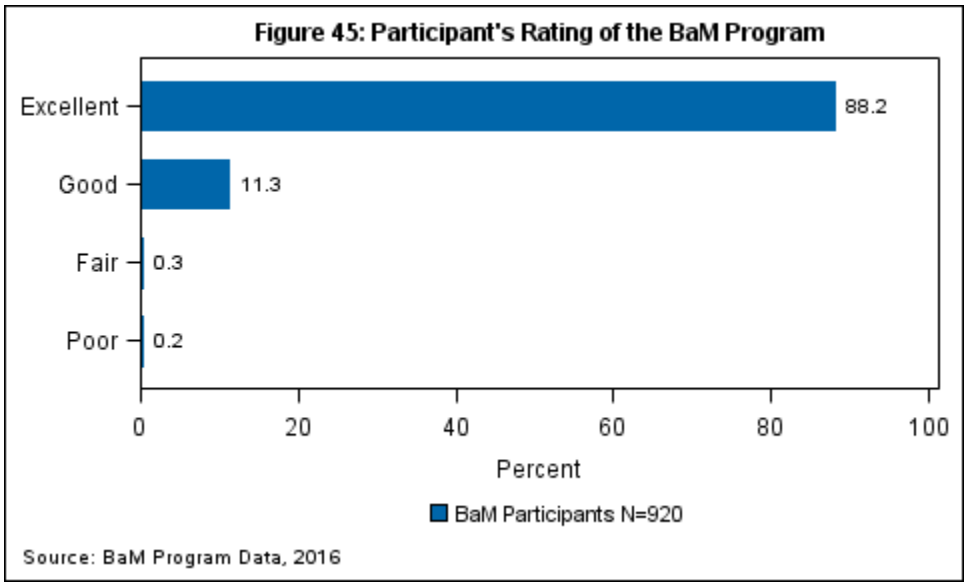
Table 3: Intent to Contact Community Services/ Programs

Program	Have Contacted/ Plan to Contact	Did Not Plan to Contact	Total Respondents	Skipped Question (Number of Respondents)
Breastfeeding	63.1 % (N=379)	36.9 % (N=222)	601	95
Car Seat	47.8 % (N=288)	52.2 % (N=314)	602	94
Childcare	30.1 % (N=181)	69.9 % (N=421)	602	94
Domestic Violence Prevention	2.5 % (N=15)	97.5 % (N=586)	601	95
Healthy Start	52.8 % (N=321)	47.2 % (N=287)	608	88
Housing	8.1 % (N=49)	91.9 % (N=556)	605	91
Medicaid	56.5 % (N=343)	43.5 % (N=264)	607	89

Mental Health	16.8 % (N=101)	83.2 % (N=500)	601	95
Parenting	40.5 % (N=243)	59.5 % (N=357)	600	96
Substance Abuse	3.4 % (N=20)	96.6 % (N=575)	595	101
Tobacco Cessation	5.3 % (N=32)	94.7 % (N=569)	601	95
Transportation	6.6 % (N=40)	93.4 % (N=563)	603	93
WIC	68.6 % (N=418)	31.4 % (N=191)	609	87
Other	30.1 % (N=172)	69.9 % (N=400)	572	124
N is number of respondents				

Evaluation

Overall, the BaM/Cb participants rated their experience in the program positively, with 88.2% rating their experience as excellent (Figure 45). Participants also favorably evaluated the social support component (Figure 46 and Figure 47) and ease of understanding the material (Figure 48). Most participants reported they had learned "a lot" (78.5%) and "some" information (20.8%) from the program (Figure 49). All six sessions were considered to be helpful; every session had more than 80% of the participants rate the session as "very" or "extremely" helpful (Table 4).



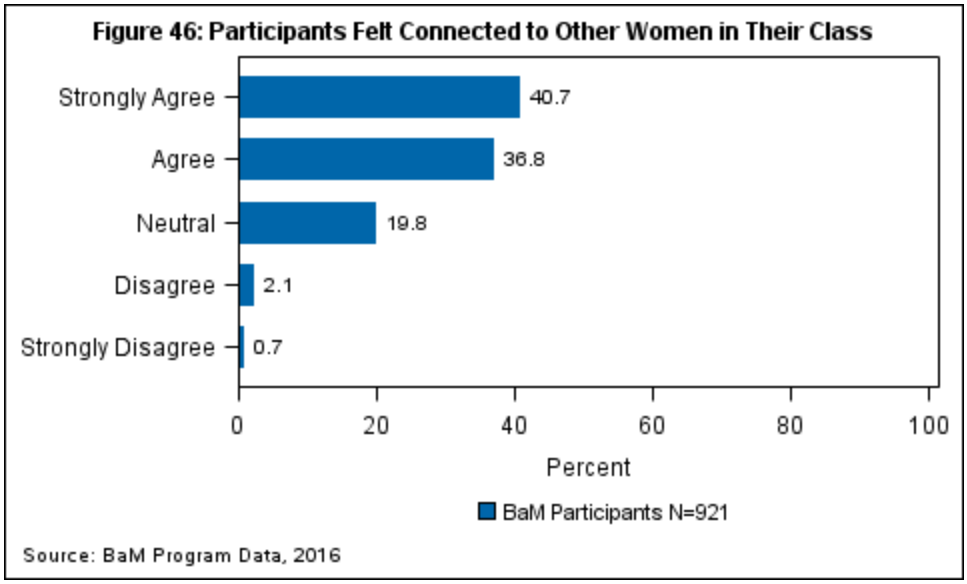


Figure 46: Participants Felt Connected to Other Women in Their Class
Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree
40.7
36.8
19.8
2.1
0.7
0
20
40
60
80
100
Percent
BaM Participants N=921
Source: BaM Program Data, 2016

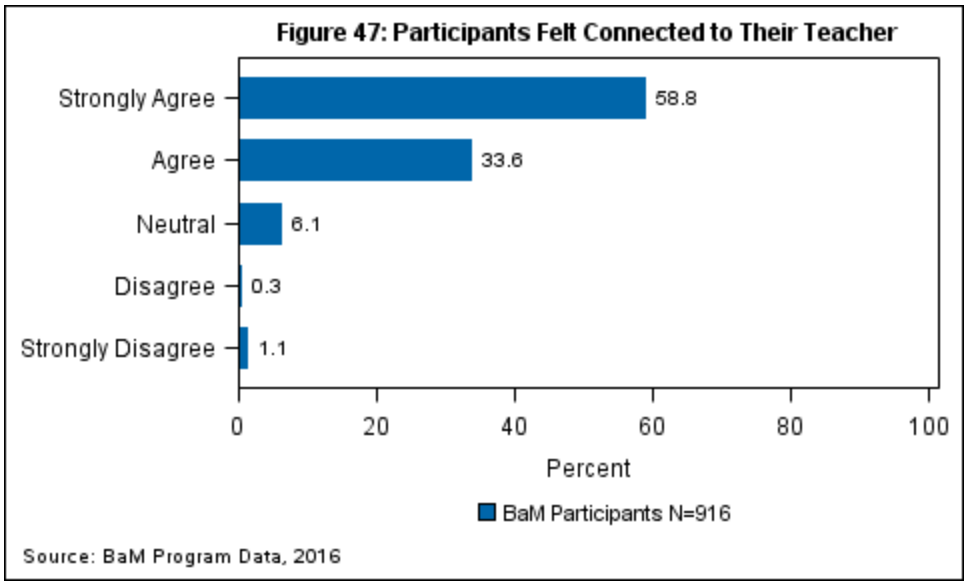


Figure 47: Participants Felt Connected to Their Teacher
Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree
58.8
33.6
6.1
0.3
1.1
0
20
40
60
80
100
Percent
BaM Participants N=916
Source: BaM Program Data, 2016

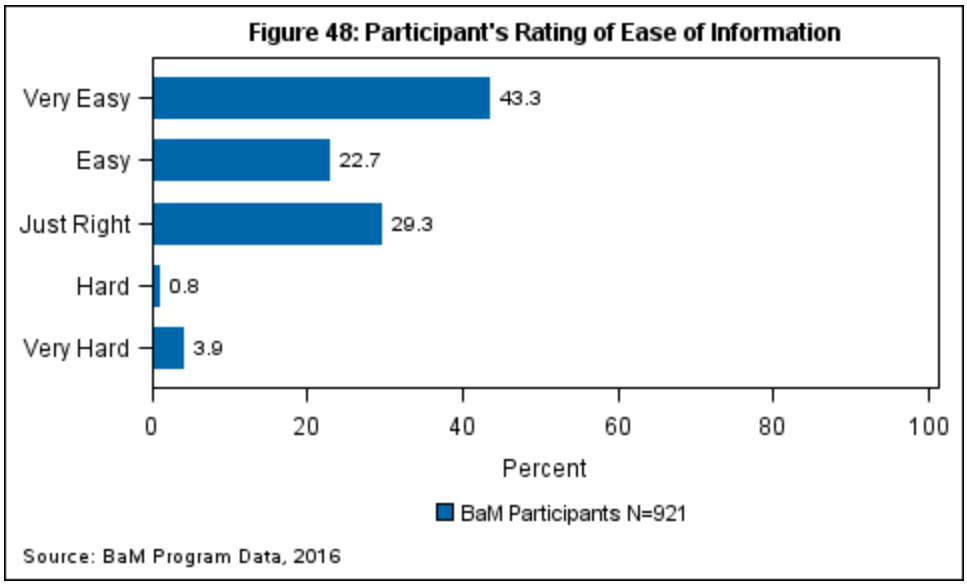


Figure 48: Participant's Rating of Ease of Information
Very Easy
Easy
Just Right
Hard
Very Hard
43.3
22.7
29.3
0.8
3.9
0
20
40
60
80
100
Percent
BaM Participants N=921
Source: BaM Program Data, 2016

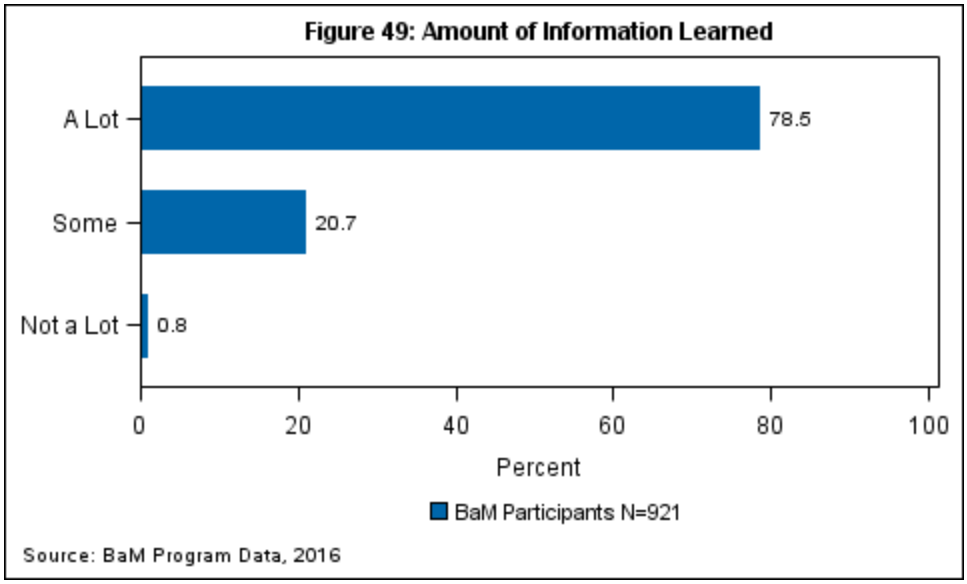


Table 4: Evaluation of the Becoming a Mom /Comenzando bien® Sessions

Rating on the helpfulness of the session:						
	Not at all	**A little**	**Somewhat**	**Very**	**Extremely**	**Did not attend session**
Prenatal Care	0.8% (N=7)	5.2% (N=47)	9.7% (N=88)	41.3% (N=375)	39.1% (N=355)	4.0% (N=36)
Pregnancy Health	1.1% (N=10)	3.6% (N=33)	11.6% (N=106)	40.9% (N=375)	40.4% (N=371)	2.5% (N=23)
Labor and Delivery	0.8% (N=7)	1.3% (N=12)	2.6% (N=24)	34.6% (N=316)	58.5% (N=535)	2.2% (N=20)
Infant Care	0.4% (N=4)	1.0% (N=9)	3.7% (N=34)	34.2% (N=314)	58.6% (N=538)	2.1% (N=19)
Infant Feeding	0.6% (N=5)	1.2% (N=11)	2.0% (N=18)	31.9% (N=292)	63.0% (N=577)	1.4% (N=13)
Postpartum Care	0.3% (N=3)	1.3% (N=12)	5.3% (N=48)	37.0% (N=335)	53.2% (N=481)	2.9% (N=26)
N is number of respondents						

Recommendations

The data analysis and evaluation design provides important measures for the Becoming a Mom/Comenzando bien® (BaM/Cb) program and community collaborative model in Kansas. As with all program evaluations, there are opportunities for improvement. The evaluation team from Kansas Department of Health and Environment has provided the following recommendations based on the results from 2016 end-of-year data.

- Upon program intake, 12.4% of participants reported depression as a chronic health condition, while 23.6% scored for referral upon screening with the Edinburgh Postnatal Depression Scale during the program and 16.8% report having contacted or planning to contact mental health services upon program completion. Evaluation also shows significant change in the beliefs or attitudes of program participants around depression/anxiety during and after pregnancy. The vast increase in the number of women who report being very likely to talk with their healthcare provider and/or access available resources, as well as the dramatic increase in the knowledge of mental health resources in their community pre-to-post program, demonstrates the true benefit of integration efforts that have been made by Kansas programs. Continue with integration efforts around mental health, including follow-up training following review, revision, and endorsement by the Kansas Maternal and Child Health Council (targeted for inclusion in the BaM relaunch training Spring 2017).

- While 7.8% of participants reported being a smoker upon program intake, there were minimal rates of cessation by program completion. Continue to build integration efforts and partnerships around smoking cessation. Consider surveying current and former BaM participants who are smokers, as to what kind of services, support, and incentives might better encourage and support them in their cessation efforts. Strengthen partnerships with participant prenatal care providers to assure screening and messaging around the importance of smoking cessation is consistent, strengthen referral and follow-up systems, and support the use of Nicotine Replacement Therapy (NRT) when indicated.

- Continue to support and monitor WIC participation rates. Consider follow-up integration training as needed by program sites. Additionally focus on Medicaid related integration efforts over the next year. Consider incorporating follow-up questions related to WIC and Medicaid eligibility criteria for women who answered “no” to determine if they are indeed eligible for these services. This is something that could be integrated into the DAISEY evaluation tools during July revisions.

- Focus on curriculum delivery regarding the importance of exercising 30 minutes or more a day for at least 4 times a week, as well as continued reinforcement of the need for daily folic acid intake. This is in part being addressed with the inclusion of the new handout “Recommended exercises during pregnancy” following requests from sites for a handout covering this topic. This reinforcement will also be a focus of the “Pregnancy Exercise and Nutrition Program” integration component to be implemented in collaboration with KU School of Medicine, Wichita, pending updates can be made to this resource. This integration component is also intended to provide benefit to the higher percentage of participants who report conditions of gestational diabetes and high blood pressure / pre-eclampsia, in an effort to reduce complications and risk factors for

developing diabetes and high blood pressure later in life. “Take home” points regarding this information will be reinforced on final slides of the session PowerPoint.

- While the induction rate among BaM/Cb participants is higher than 2015 Kansas Births, 21.4% of the BaM/Cb inductions were also indicated as elective and 5.6% of the cesarean deliveries were elective. This certainly provokes interest in conducting a focus group to better understand women’s rationale behind these choices. Identify sites with high elective induction and elective cesarean delivery rates, monitor rates in the next year, and consider a possible focus group in this location. Focus on curriculum delivery to discourage elective inductions and elective cesarean delivery. Consider showing brief video clip “Is It Worth It” that will be imbedded in the session PowerPoint.

- Although demographics of BaM/Cb program participants shows an improved reach across disparity groups, state technical assistance and integration efforts, as well as local collaborative and recruitment efforts, should continue to focus on recruitment of the Medicaid and uninsured populations, minority groups, and lower education populations, to better reach the targeted “disparity” population the program is aimed at, further driving the rate of improvement in outcomes.

- Minor changes to the DAISEY evaluation tool are recommended for July 2017 revisions. On the pre survey, “Anxiety” should be combined with the selection option of “Depression” for the question asking about health issues, to be consistent with the outcome form. Out of the 7.5% of women who selected “Other” as a health issue on the initial survey (Figure 13), 20% indicated “Anxiety” as a health issue they had. In addition, “Work/School” should be an added selection option for the question asking what prevents them from attending their prenatal care appointments. Out of the 1.4 % of women who selected “Other”, 50% mentioned school or work. This is a small percentage of the overall program participants, but could still be valuable.

- The DAISEY evaluation tool will be revised immediately to remove the “I don’t know” option from questions in the pre and post surveys. The “I don’t know” option creates an opportunity for respondents to disengage from the survey and avoid having to think through answer choices. Participants should be encouraged to give their best guess, which is more valuable than an “I don’t know” response.

- While BaM outcome data demonstrates sites are highly successful in educating, encouraging and supporting participants to initiate breastfeeding and breastfeed exclusively, more can be done to support exclusivity and duration rates. Timing of completion of the outcome survey varies from the first week to 8 months postpartum. The question related to breastfeeding exclusivity does not have a set timeframe and therefore cannot be compared to Healthy People 2020 targets or other data sources. Sites currently do not collect information from participants regarding breastfeeding duration at the 6 months and 1 year mark or breastfeeding exclusivity at 3 or 6 months, which are Healthy People 2020 measures. Recommendations would include the development of a tool to be used by BaM program staff or partner agencies to provide follow-up at targeted time frames throughout the first year when statistics show women are most likely to begin supplementation or discontinue breastfeeding. This allows the opportunity to provide greater support and

resources to program participants, as well as collect data regarding continuation and exclusivity rates.

- Currently 23.1% of program participants enter the program in their third trimester, while first thru second trimester are recommended points of entry. Target recruitment efforts across BaM sites to encourage earlier provider referral and entry of pregnant women into the program.
- Program sites are encouraged to assess and consider recommendations made by program participants via the "additional feedback" portion of the Completion Survey. Most of these appear to be site specific and therefore will not be presented in this aggregate report but could bring value to individual programs.
- Sites are encouraged to focus on "consumer engagement" in 2017, including participant/alumni representation on advisory boards, maternal and child health councils, perinatal collaboratives, etc. to gather feedback and input on the program from the consumers themselves. Remember the saying "***nothing about us, without us"***.
- Overall the program is rated very highly and the information was reported as easy to understand. Continue effective delivery of program materials with improvements incorporated as described and recommended above. Curriculum standardization efforts that involve the development of PowerPoints, lesson plans, activity plans, and recommended resources for each session are near completion and are hoped to help program sites better achieve such program goals.

References

1. Oakley, D, Crawford G. Selected Special Statistics, Stillbirths and Infant Deaths, Kansas, 2015. Kansas Department of Health and Environment. 2017. Retrieved from http://www.kdheks.gov/hci/IMR/2015_IMR_REPORT.pdf [accessed January 26, 2017].
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3. US Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Available at: https://www.healthypeople.gov/2020/data-search/Search-the-Data#topic-area=3492;. [accessed January 25, 2017].